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ABSTRACT

This book, one of a series that uses Geographic Information Systems (GIS) to outline the need for and provision of services (education, health, housing, electricity, roads, telecommunications, postal services, and police services) in each of the nine South African provinces, presents a global view or indicator of the simultaneous influence of the socio-economic status of people and the level of provision of domestic services and public facilities in the Northern Province. The view in this book encapsulates its social and service profile, obtained, first, by developing indices for the social and service variables for the district. The book uses a single index, or benchmark, of levels of socio-economic status, household services, and public facilities in each magisterial district, created by combining these indices. In order to provide information about local levels of development, knowledgeable persons involved in service delivery in each province, were contacted for their comments. The books in this series contain maps, tables, a bibliography, and contributions from spokespersons in non-governmental organizations, universities, government departments, service providers, parastatals, and research organizations. Demographic data used in the book is based on the 1991 census data. (Contains 32 references.) (BT)

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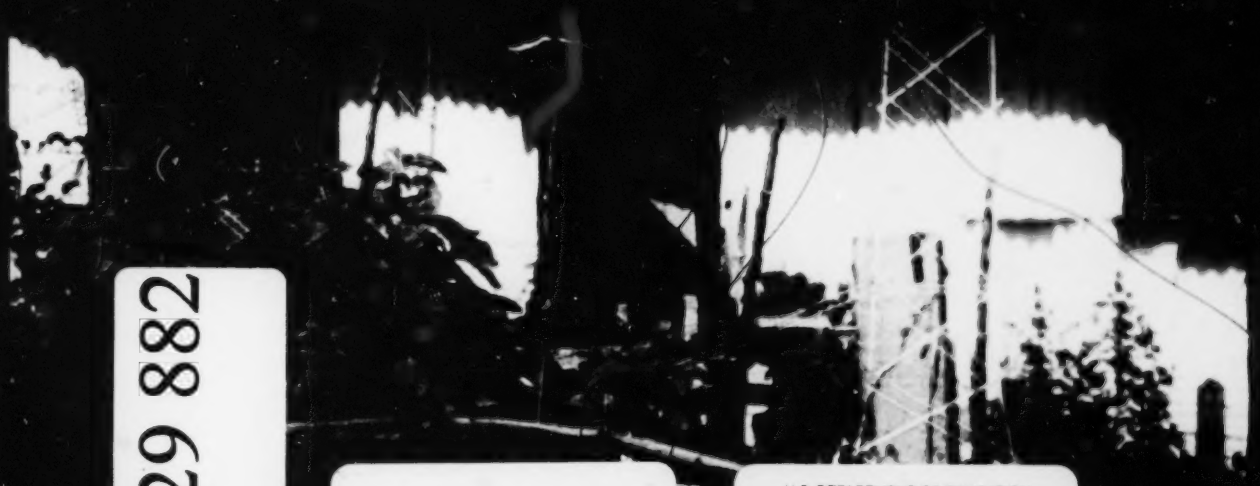

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NORTHERN PROVINCE

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SERVICE NEEDS AND PROVISION IN THE NORTHERN PROVINCE

SERVICE NEEDS AND PROVISION IN THE NORTHERN PROVINCE

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PREFACE

Little is known about the overall availability of services within the new provinces of South Africa in relation to fine-grained demographic distributions that are now becoming available through Geographic Information Systems (GIS) technology. Research that has been done on particular services such as water, sanitation and electricity, has largely been undertaken in isolation by parastatal and government service providers and has not contributed to a holistic picture of the availability of basic services. In addition, this information has largely been collected in report and tabular format without any spatial representation of service provision relative to demographic distribution.

In this publication an attempt is made to provide, for the first time, a more complete spatial analysis of socio-economic, demographic and service variables for the Northern Province at magisterial district level. Similar publications have been produced for each of the new South African provinces. Not only will the location of needy communities be identified within the province, but the distribution of services such as water, sanitation, electricity, housing, education, health, roads, telecommunications, postal services, police services and even retirement facilities in relation to the demographic patterns of the province will be established/demonstrated.

The demographic information is based on the 1991 Census data and the provision of services is based on information provided by organisations acknowledged in Chapter 5. When the 1996 Census data become available at enumerator area, or magisterial district level, a temporal extension and trend analysis of this database could be undertaken if funding is available.

It is hoped that this publication will supply developers and planners with relevant information to assist in delivering and maintaining basic services. Development role-players at all levels should see the value of developing and maintaining spatially referenced databases that keep up to date with changing demographic and service patterns. The GIS Unit is currently compiling a database of the geographic location of development projects which will provide another important layer of information for decision makers.

JON TAYLOR

REGIONAL DIRECTOR HSRC: KWAZULU-NATAL OFFICE

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INTRODUCTION

The Human Sciences Research Council (HSRC) has identified the need for socio-economic information on the distribution of resources for infrastructure, services and facilities within South Africa as an important priority. This information will undoubtedly be required for the effective implementation of the Reconstruction and Development Programme (RDP) in the nine provinces.

Consequently the Geographic Information System (GIS) Unit of the HSRC undertook a project aimed at showing the patterns of service delivery in the Northern Province at magisterial district level and relating this to the socio-economic needs of communities within the province. Infrastructure and service facilities identified for incorporation into the project were education, health, water, sanitation, housing, electrification, roads, telecommunications, postal services, police services and retirement facilities.

In order to focus on districts with relatively poor socio-economic profiles and those which require assistance to improve their basic quality of life, the following variables were mapped: population density, pupil teacher ratio, poverty, number of households and dependency. The information was combined into an equally weighted Combined Social Needs and Service Provision Index which identifies a range of districts within the Northern Province as priority areas requiring the attention of provincial authorities.

Although some organisations have done a great deal of research on the availability of services in the province, none has provided the information in an integrated format that allows the visualisation of the distribution of these services and facilities within the province. In addition, little work has been done to relate the provision of services to the needs of communities within the region. Consequently, the GIS Unit of the HSRC undertook the project with the intention of entering the information into their GIS system and conducting analyses of the data sets. Maps reflecting the distribution patterns of services and underdeveloped communities in the Northern Province could then be produced.

The production of the document required collaboration with many organisations to obtain information on service provision and provide perspectives as to why specific distribution patterns exist, as well as to outline future trends in meeting the basic service needs of the province. The document has been written to provide a source of information to national and provincial decision makers. In addition, it will be available to development funding agents and planners who provide much-needed service infrastructure to needy communities in the Northern Province.

2

THE CONCEPT OF GEOGRAPHIC INFORMATION SYSTEMS (GIS)

To many people the term Geographic Information System (GIS) is foreign and confusing. In essence, a GIS is a "system of computer hardware, software and procedures designed to support the capture, management, manipulation, analysis, modelling and display of spatially referenced data for solving complex planning and management problems" (Montgomery & Schuch, 1993). A GIS enables the transfer of spatial information from sources such as satellite images, aerial photographs, topocadastral maps and plans into a computer where the information is stored and analysed before being printed out as maps.

Geographic Information Systems (GIS) made their appearance in the late 1960s and 1970s. Some of the pioneering systems developed included those within the Harvard computer graphics laboratory and the Canada GIS (CGIS). The driving force behind the development of GIS stemmed from the need for organisations to solve particular spatial problems occurring in a business, academic, resource management, social or engineering environment. Specifically GIS was born to meet the ever-increasing need to use and manage large spatially referenced data sets (Montgomery & Schuch, 1993).

GIS was introduced in South Africa in the early 1980s. Progress in its use was slow and South Africa lagged behind the rest of the world until fairly recently. The reason for this stems largely from sanctions that restricted exchange in GIS use, software, education and training. However, by the late 1980s and early 1990s GIS had progressed significantly within South Africa to become an important tool in providing information needed by decision makers and planners in implementing programmes such as the Reconstruction and Development Programme (RDP).

The advantages of GIS are numerous. Aspects that make it indispensable as a decision-support tool include the ability to overlay and relate several layers of information, to conduct mathematical modelling of data sets, to develop spatial scenarios, to visualise development situations, and to construct spatial decision support systems. One of its major benefits is that it provides a quick and integrated way of viewing information. In addition, with advances in computer technology and software, it allows for the storage, management, manipulation, analysis and output of large data sets.

For these reasons the HSRC decided to use GIS as a tool in achieving its goals, particularly for projects such as the Service Needs and Provision project within the Northern Province. GIS has enabled researchers in the GIS Unit not only to integrate data from a wide variety of sources but, in combining this data, to create new layers of information. Without GIS it would have been impossible to analyse and spatially represent service provision in relation to population within the province.

3

SUMMARY SOCIO-ECONOMIC PROFILE OF THE NORTHERN PROVINCE

The Northern Province comprises districts from the former Transvaal province as well as three former black homelands, Venda, Gazankulu and Lebowa.

The Gini coefficient of income inequality for the Northern Province is 0,66. This indicates slightly higher levels of inequality than the South African average of 0,65. According to Smith (1987) 71,9% of the total South African population were Blacks but only 25,5% of income accrued to them. The whites earned 64% of income but comprised only 16,2% of the population. The Asians earned 3,2% of total income and made up 2,8% of the population. The coloureds were 9,1% of the population and earned 7,3% of total income.

The coefficient of advantage divides a groups' income percentage by their population percentage. Scores above one indicate that a group has higher percentage earnings than percentage population. Conversely, scores below one indicate lower percentage earnings than population percentage. Smith (1987) found that the whites' percentage earnings were 3,95 times their percentage population. The Asians were the only other group with a coefficient of advantage above one, 1,14. The coloureds and blacks both had coefficients of advantage of less than one, 0,8 and 0,35, respectively.

According to Erasmus (1997) the per capita poverty gaps of the former Transvaal districts of the Northern Province range between R198 and R400 per year. In the former homeland of Venda the range is R454 to R513. The former homelands of Lebowa and Gazankulu show the highest levels of per capita poverty. The exception is Namakgale, the twin district of the mining town Phalaborwa, where the poverty gap is only R327 per person per year. In the remaining districts, the poverty gaps range between R500 and R712.

Erasmus (1997) also found that the former Transvaal districts all have dependency ratios of 1,5:1 or lower. Some of these districts even have dependency ratios of as low as 0,6:1. The districts with the lowest dependency ratios are those where mining and commercial agriculture occur on a significant scale. In the former homelands dependency ratios range from around 3 additional people to nearly 11 additional people to be supported by each economically active person. Bearing in mind that the dependency ratios include the unemployed and informal sector workers in the supporting rather than in the dependent population, even these relatively high figures still understate the extent of the problem.

A contributing factor to the low standard of education in many parts of the Northern Province is the lack of education facilities. In some communities the bare essentials such as school buildings are a rare commodity. Pupils attend classes under trees or are housed in shacks that are not conducive to learning. Another contributing factor is the high pupil:teacher ratio. Some teachers are expected to teach up to 95 pupils per class. Congestion in such cases makes the slower learners drop out early and those who

progress to the next class are not yet competent to deal with it. The result is that the standard of education is lowered because the teacher is sometimes compelled to pass a certain percentage of the class. The homelands largely comprised rural communities that were expected to build schools and the slow rate at which they could do this contributed to the high pupil:teacher ratio. This high ratio made effective teaching difficult which contributed to a high failure rate which, in turn, contributed to even higher pupil:teacher ratios thus perpetuating the circle (Tladi & Nghatsane, 1997).

The use of socio-economic and service data provides a more complete picture of conditions throughout the province. The use of social and service indices, described in the next chapter, facilitates the use of a single index that summarises the effect of 5 social and 10 service variables.

4

APPROACH TO THE STUDY

4.1 Methodology

The aim of the project was to detail the access of the population to services in each magisterial district of the Northern Province. This was not an exercise in mapping the exact location of pipelines supplying water to urban areas for example, but rather in mapping the percentage of households that have access to water supply. Thus the study has two main aspects, the socio-economic profile of the population within each magisterial district, and secondly, the relative access to these services between districts.

The socio-economic variables considered were

- population density,
- total population,
- employment,
- dependency,
- poverty,
- functional literacy, and
- pupil:teacher ratios.

The standard of living of the population within a magisterial district will often be an indicator of the access to services. Data relating to the socio-economic variables were obtained from the 1991 Census.

The services considered were

- education,
- electricity,
- housing,
- roads,
- water and sanitation,
- post offices,
- retirement dwellings,
- health facilities,
- police services, and
- telephones.

Data on these services had to be obtained from the service providers before being georeferenced and entered into a GIS database format. Once the accessibility of services to the population had been mapped, maps and tables were distributed to experts in each service field for their comment.

4.2 Social and service indicators

A global view or indicator of the simultaneous influence of all the social and service indicators is necessary to encapsulate the social and service profile of each district.

This will clearly arrange all districts along a social and service gradient, thereby facilitating prioritisation of districts for development interventions. This can be done firstly by developing indices for the social and service variables that represent the social and service profiles of each district. Thereafter these indices can be combined to give a single index of the level of development of a district. These indices were developed for districts at both the national and provincial levels. This allows comparisons to be drawn between national and provincial priorities which differ due to varying provincial and national minimum and maximum values per variable. The variables selected therefore needed to have complete data coverage at both national and provincial levels.

The selected social variables were the poverty gap, pupil:teacher ratio, dependency ratio, total households, and population density. The service variables were the ratios of population to police stations, post offices and hospital beds; the ratio of road length to district area; the ratio of 6 to 17 year olds to schools; the percentages of fully serviced houses, informal houses, formal houses electrified and informal houses electrified and telephone shares. The social index had five variables each with twenty ranges giving a total number of 100 ranges. Additional columns were created to assign the rank of the variable per column. The theoretical minimum and maximum social index value would then be 5 and 100 respectively. The values for each variable could not be ranked in ascending order in all cases. High values in poverty, pupil: teacher ratios, dependency and population densities suggest underdevelopment, but a high value for total households would not. High index scores indicate underdeveloped districts needing development interventions. The corollary to this is that a district not requiring development intervention based on a social index would have a low index score and the following social profile: a low poverty gap, low pupil:teacher ratio, low dependency ratio, low population densities and a high number of households.

The service index had ten variables each having ten ranges. Here the theoretical minimum and maximum values are 10 and 100, respectively. Each service variable had to be ordered according to whether high scores were beneficial to a district or not. A district with a low service index score and not requiring development intervention would have the following service profile: low ratios of population to police stations, post offices and hospital beds; a high ratio of road length to district area; a low ratio of 6 to 17 year olds to schools; high percentages of fully serviced houses, formal houses electrified and informal houses electrified; high telephone shares, and a low percentage of informal houses. A district with a high index score requires development intervention and would have the following service profile: high ratios of population to police stations, post offices and hospital beds; a low ratio of road length to district area; a high ratio of 6 to 17 year olds to schools; low percentages of fully serviced houses, formal houses electrified and informal houses electrified; low telephone shares, and a high percentage of informal houses.

A combined index would add the service and social indices, both having a maximum of 100, and divide the sum by 2, giving a maximum to the combined index of 100. As in the social and service indices, the higher the combined index score the greater the degree of underdevelopment.

4.3 Spatial scales

Originally, the spatial analysis of service provision was to be based on the enumerator

areas (EAs) from the 1991 Population Census, but for logistical reasons, outlined below, it was decided to confine the analysis to census districts. An EA is the smallest building block of the census and has been defined by the Central Statistical Service as "consisting of a number of visiting points ... a visiting point is any occupied unit, e.g. a house, flat, caravan, hotel etc." As one would expect, EAs are denser in urban areas than in rural areas. Census districts are groupings of EAs and, in most instances, follow similar boundaries to magisterial district boundaries.

The reason for the shift in focus from EAs to census districts is that most of the information on services and service provision is not readily available at EA boundary level but has been collected and is available at census district level. In addition, the information at this level will provide decisionmakers and planners at a national and provincial level with appropriate information. Once verified that an area is in need of services, more detailed information, which is not presently available at a detailed level such as EAs, can be collected.

Having said this, there are obvious problems in the analysis of service provision on a census district scale. The major problem is the fact that there is a tremendous variation (demographic as well as in service provision) within districts. Within a single district there may be well-provided formal towns, while the sparsely populated rural areas may have high poverty levels and the worst rates of basic service provision. When analysing services at a census district level, these variations could be lost in averaging and aggregation.

4.4 Data problems associated with choice of spatial scale

Much of the service supply data acquired from the service providers was at a town level. So, for example, information was obtained for towns that have post offices, a number of pre-school facilities, etc. Each of the towns was then identified and placed within the correct census district. Often towns were not in the census database or on maps or atlases and thus personal knowledge and experiences had to be relied upon.

The problems that have been highlighted above stress the need for better data collection, as well as the need to set standards on the spatial scales at which data are collected. This would greatly improve analyses in this field and be an indispensable source of information to planners and service providers. The use of GIS will facilitate this process since spatial units already exist at different scales from which data can be aggregated. Not only will this result in the standardising of databases, but it will also assist in the provision of information over several years and enable trend analyses to be done.

4.5 Problems associated with obtaining data from service providers

One of the main problems encountered in this project was the lack of clear definitions of services. This resulted in information being entered into the GIS and maps being produced for comment by the service providers, only to discover that not all, or conversely too many, facilities had been included in the definition of that service. It is thus important to establish a clear understanding of what is meant by a service and what facilities form part of such a service.

Service providers were largely unfamiliar with the GIS and how it could be used. This often resulted in the provision of information that could not easily be entered into the GIS, thus forcing the research team to assess the information before including it in the data set. However, through a process of consultation, this problem was largely addressed and only relevant information was entered.

The format of information on services was often unsuitable for incorporation into the database. This meant that research teams had to spend many hours converting the data into a suitable format. In addition, it was not always easy to enter digital or database information from other sources into the GIS, but eventually ways were found to transfer all the data onto the GIS software.

Other aspects that plagued the project were inaccuracies in the different data sets, outdated databases and a lack of verified information. Producing maps from a GIS often makes it possible to identify inaccuracies in the information and make subsequent corrections. Experience suggests it is necessary to plan for such delays well in advance.

In solving these problems, the GIS team of the HSRC has added to its expertise in the fields of spatial database development and GIS research. As a result of this report there is now a comprehensive collection of spatial and attribute data related to service provision for census districts in the Northern Province. This database can be further developed, refined and provided to any organisation involved in service provision and development in the province.

5

INFORMATION SOURCES

Research on providers of service information and literature reviews were conducted by members of the GIS Unit. All the major known service providers were contacted and appropriate data sources identified. Although attempts were made to obtain recent and comprehensive sources of information, it is acknowledged that more definitive databases may exist elsewhere in the country.

It must also be repeated that certain data sets may have inherent inaccuracies (see Introduction). However, what is important is that the information was obtained from the best known sources and, in some instances, the only known sources. The information is therefore considered the best base available for use by the RDP and from which more refined data can be gathered.

SERVICE TYPE	SOURCE OF DATA	FORMAT AND LEVEL OF DATA	DATE CAPTURED	ORGANISATION
Demographic information	Spatial data captured from 1:50 000 (rural areas) and 1:6 000 (urban areas). Database extracted from 1991 Census	Digital data at census district level	1991	Human Sciences Research Council CSS
Education facilities and indicators	Education Atlas of South Africa	Digital data at a census district level	1994	Education Foundation
Health facilities and utilisation	ReHMIS	Digital data at a point location level Tabular data at health region level	1994 1996	Department of Health Health Systems Trust
Poverty levels	1991 Census Poverty database	Digital data at a census district level	1991	Human Sciences Research Council
Post Office	Post Office: Sales & Marketing Department	Tables at a district level	1994	Post Office
Telephone lines	Telkom: Technology strategy	Tables of residential line shares at district level	1995	Telkom
Roads	Surveyor General	Line digital data	1991	Surveyor General
Water supply and sanitation	National Electrification Forum (NELF)	Digital data at a census district level	1994	Eskom
Electricity supply	National Electrification Forum (NELF)	Digital data at a census district level	1994	Eskom
Police facilities	SA Police Service	Tables at a magisterial district level	1994	SAPS

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6

SOCIAL FACTORS HIGHLIGHTING THE NEED FOR SERVICES IN THE NORTHERN PROVINCE

6.1 Population dynamics

Introduction

The discussion on population dynamics in the Northern Province aims at providing a spatial overview of population in the province. It focuses on important issues related to population pressure that will have to be dealt with in the future. Population pressure can be conceived of as the demand being placed on the world's resources by the population. Population pressure is linked to the idea of overpopulation. Given the finite nature of many of the world's resources, as well as the relatively slow rate of renewal of other resources, increasing population pressure eventually leads to a situation of overpopulation whereby the population exceeds the ability of the environment to support it adequately without the environment being harmed. Two kinds of overpopulation can be identified: the first is termed people overpopulation and exists where the number of people exceeds the ability of the environment to support their basic needs. This results in scarcity of resources such as food, water and land. This type of overpopulation is more common in less developed countries and results in degradation of potentially renewable resources such as soil, forests, grasslands and wildlife resources (Miller, 1992). The second type of overpopulation is more common in industrialised countries and is known as consumption overpopulation. In this type of overpopulation it is not so much the number of people that is a problem as the high rate of resource use per person in the country. This high rate of resource use leads to a depletion of the resources, as well as to problems of pollution and other types of environmental degradation (Miller, 1992). Population pressure can also negatively affect economic growth and development in a country. When the population growth rate is higher than the ability of the economy to provide employment and other services to the population, large investments are needed to provide social services to the population thereby reducing resources available for stimulating economic growth.

A growing population leads to increasing population pressure and the danger of people overpopulation. As present population trends influence future scenarios, an examination of population trends in an area, especially those related to population pressure, should include an examination of aspects such as population size, the density of the population and the magnitude and direction of population change.

Current population policy in South Africa, as set out in the Draft White Paper for a Population Policy of September 1996, attempts to address the problem of increasing population growth and resultant population pressure. In the first section of this chapter a brief summary of the policy as outlined in the White Paper will be given. The second section of the chapter will provide an outline of selected aspects of population dynamics in the Northern Province. The final section of the chapter will identify those areas in the Northern Province considered worst off in terms of population pressure.

Population policy

The Draft White Paper for a Population Policy published in September 1996 recognises the important interrelationship between population, development and the environment. It defines sustainable human development as "meeting the needs of the present generation and improving their quality of life without destroying the environment or depleting non-renewable natural resources, in order to avoid compromising the ability of future generations to meet their own needs" (Government Gazette 1996:7). Guided by this definition a number of population concerns and their underlying factors are identified. These population concerns cover four main areas:

- Lack of the availability, use and analysis of population data especially as related to development planning, as well as a lack of institutional and technical capacity for the analysis of population data and for integrated population and development planning
- Problems related to characteristics of the population itself. These include the structure of the population, the high incidence of fertility and unwanted teenage pregnancy, and high rates of premature, infant and maternal mortality.
- The inadequate analysis of problems related to migration and settlement patterns such as the causes and consequences of urban and rural settlement patterns, as well as the nature and impact of international immigration.
- Problems related to population growth and population pressure in relation to the growth of the economy such as the backlog of social needs to be met, high levels of unemployment and the impact on the environment of population pressure and production and consumption patterns.

The Draft White Paper on Population recognises the link between factors such as poverty, high mortality rates, low status of women, a lack of democracy and high fertility on the one hand, and population growth rates on the other. Strategies have been adopted which will address these concerns. In the past, population policy was aimed mainly at fertility control, restricting migration and controlling settlement patterns. The new policy aims to address the problem of population pressure by influencing the determinants of high population growth through a wide range of strategies which include reducing poverty, improving primary health care services, addressing environmental issues, promoting responsible and healthy sexual and reproductive behaviour in young people, improving education for all and improving the status of women. In order to reduce population pressure in both rural and urban areas it aims to provide improved social services, infrastructure and employment opportunities in rural areas through rural development. This should slow down the rapid rural-urban migration and improve the capacity of rural areas to provide a livelihood for people living there.

Population dynamics in the Northern Province: An overview

This overview of population dynamics in the Northern Province focuses on problems of population pressure in the region. Indicators of population pressure such as population size and population density are good starting points for such a discussion. However, it is also important to examine trends in population growth as this will give a clearer indication of future scenarios.

Map 1 and Table 1 show the **total population** of the magisterial districts in the Northern Province according to the 1991 Census. The population size ranges from 22 959 in Messina to 446 155 in Mokerong. Those districts with the lowest total population i.e. Messina, Ellisras, Phalaborwa and Soutpansberg are all areas without large urban population concentrations and are dominated by white-owned farms. Farming is of an extensive nature owing to the largely semi-arid climatic conditions which exist there. Districts with the highest population concentrations include Mokerong (446 155), Sekhukhuneland (404 335), Thabamoopo (353 193), Nebo (324 909) and Seshego (302 676). All these districts lie in the former homeland of Lebowa and border on the district of Pietersburg. The urban populations of Seshego (44 261), Pietersburg(39 687) and Thabamoopo(32 505) are the largest urban concentrations in the Northern Province. These urban concentrations are part of the same urban functional area, that is of Pietersburg. The fact that they lie in different magisterial districts is a reflection of the segregation caused by the apartheid policy. Because this is the largest urban concentration in the Northern Province, it operates a pull mechanism on the entire province, attracting in-migration largely because of the greater number of job opportunities. Natural increase of the population contributes to the growth of population in the region. Except for Lulekani, Namakgale and Mutale, all the districts situated in the former homelands of Lebowa, Gazankulu and Venda have larger total populations than those situated in former white areas. Segregation caused the larger black population to be concentrated in the smaller homeland areas thus contributing to their larger populations. Furthermore the government policy of resettling black people in these homelands contributed to this situation and the high fertility rate in these areas has exacerbated the situation by bringing about a large natural increase in the population.

Total population is not a very useful indicator of population pressure in an area except where it is used in a historical context to show the extent of population growth. The density of population in an area is a far more useful indication, although it does not account for the differences in the carrying capacity of the environment. For example, rural areas with high rainfall and good quality soil have a higher carrying capacity than those with a less optimal physical environment. The area with a superior physical environment would be able to support a higher population density than the area with an inferior physical environment. Likewise, urban areas can support far higher population densities than rural areas because of the greater number of job opportunities and the more sophisticated level of services and infrastructure. A high rural population density is of particular concern as large areas of productive land may be lost to farming in the process of accommodating the population. Where productive land available for farming is scarce, conservation farming cannot be practised, resulting in land degradation and a lowering of the carrying capacity of the land. If this vicious cycle continues, land may become completely desertified and unable to provide any form of support to the population who are then faced with either migration or starvation. This leads to an increase in rural-urban migration.

It must be pointed out that **population density** is a reflection of the average density of population in a district and does not give an indication of the considerable variations that may occur in the settlement pattern within the boundaries of the district. As such, any discussion of population density must rely on a general analysis of determining factors. The population density in the Northern Province varies from 2,52 people/km^2 in Soutpansberg to 374,6 people/km^2 in Namakgale. The influence of apartheid can clearly be seen on the map and table of population density (Map 2 Table 2). All

districts from the former homeland areas have higher population densities than the districts from the former white areas. Fifteen magisterial districts, all former homeland districts, have population densities higher than 100 people/km^2. Of these 15 districts, six have densities exceeding 200 people/km^2. These six districts comprise Namakgale, Hlanganani, Ritavi, Mapulaneng, Vuwani and Sekgosesi. An analysis of the extent to which these high densities occur in rural areas shows that all the areas with population densities exceeding 100 people/km^2, except for Namakgale, lie in areas where the rural population makes up more than 90% of the total population. In contrast to these high population densities, the former white areas all have population densities below 20 people/km^2 and in six of these districts, Soutpansberg, Phalaborwa, Ellisras, Messina, Potgietersrus and Thabazimbi, the population density is below 5 people/km^2.

Owing to the strong political influence on rural settlement patterns in the Northern Province, the influence of the physical environment is less clear. However, the magisterial district of Mutale, which has a population density of 27 people/km^2, is an obvious exception to the situation in other former homeland areas. This relatively low population density can be explained by the fact that large areas of Mutale are situated in low rainfall areas with poor agricultural potential. Furthermore, Mutale is a peripheral area in terms of the Venda space economy where the focus for development fell more on Thohoyandou and Dzanani. In the former white areas, Letaba (18 people/km^2) has a much higher population density than the other districts. This can also be explained in terms of physical factors as Letaba has a higher agricultural potential and the agriculture practised is more intensive than in the other districts.

In terms of future population pressure, it is important to examine the trends in population growth in the province (Table 1a). According to official census statistics, population growth rates in the Northern Province in the period 1980-1991 varied from –3,057 in Potgietersrus to as high as 39,371 in Lulekani. The extremely high growth rate reflected in Lulekani is probably as a result of the resettlement of Mocambican refugees in this small district. Lulekani covers an area of only 844 km^2 and the population grew from 1 006 in 1980 to 38 770 in 1991. An examination of population growth in the period between these two censuses shows that the population grew from 1 006 in 1980 to 8 877 in 1985. By 1988 the population had shown a massive increase to 24 338. Thereafter the population has grown at a slower rate of 16,7% per annum. However, that is still very high as it indicates a doubling time of four years.

As with population density, the population growth rates for the province show a clear division between former homeland areas and former white areas. In the former white districts the growth rate generally falls below 0,5% per annum. Only three of these districts show an increase in population: Ellisras (0,928% per annum), Warmbad (0,198% per annum) and Thabazimbi (0,140% per annum). The remaining seven former white districts all have negative population growth rates averaging at -1,207% per annum. This negative growth rate is caused by a decline in the fertility rate as well as rural-urban migration of the population. In contrast to these low growth rates, the former homeland districts all have growth rates of above 2% per annum indicating a doubling time of less than 35 years. Of the 21 former homeland districts, 11 have growth rates in excess of 4% per annum. Excluding Lulekani, the highest growth rates are found in Ritavi (5,160% per annum), Naphuno (6,138% per annum), Giyani (6,484% per annum) and Mhala (6,964% per annum). In these areas the population

doubling time is less than 12 years. This is an extremely high growth rate which may partly reflect undercounting in the earlier censuses. However, the high growth rate of population in all the former homeland areas can also be attributed to resettlement policies, as well as to the high natural increase of the population caused by a much higher fertility rate than mortality rate.

Identification of priority areas

The discussion on population dynamics in this paper highlights the clear distinction between the former homeland areas and the former white areas in the Northern Province. Problems of population pressure are greatest in the former homeland districts which, apart from Namkgale, have high rural population densities and extremely high growth rates. Priority should be given to these areas in terms of planning for future population pressure. Selected population statistics for these priority areas are presented in Table 1a. An examination of the composition of the population in these districts yields three further characteristics of the population that are cause for concern in terms of population pressure. These include the youthful nature of the population, imbalances in the female: male ratio of the population, and the low level of urbanisation of the population.

In planning for present and future population pressure, it is important to take the age structure of a population into account. A population with a young age structure has a high proportion of people below the age of 15 years. These young people are economically dependent as they are not yet part of the economically active section of the population. Facilities such as schools and clinics have to be provided for the youth and this puts pressure on government funds. In addition, a population with a high proportion of children under the age of 15 has an in-built growth momentum as these children will move into their child-bearing years in the future. Thus, even if the fertility rate remains constant, the population will grow as a result of the large number of people moving into the child-bearing group. It is also necessary to plan for the future employment of these young people, otherwise the problems of unemployment and poverty will increase. All the former homeland districts have a high proportion of their population below 15 years of age. In Namakgale this proportion is lowest at 44,8%. In all other districts the proportion is above 46% and in eight of these it is above 50% of the total population (Table 1a). Part of the reason for these high percentages is that a large number of the economically active members of the population of these districts, males in particular, have migrated to work in the larger metropolitan centres, thus reducing the number of people in the 15-64 year age group. However, the high proportion of 0-14 year olds in the population is largely a result of the high fertility rates in the region. This poses a problem for these areas where rural population densities are already high and where the population is currently growing very fast.

Imbalances in the female:male ratio of the economically active age group (15-64 years) are shown in Table 1a. Except for Namagkale (not included in the table), all districts have a higher proportion of females to males. Dzanani and Vuwani have the largest imbalance, with twice as many females as males in this group. In 12 of the districts the ratio of potentially active females to males is above 1,5. These imbalances reflect the selective migration of economically active males from the districts and is an indication that the economic base of the former homeland districts is unable to support their present populations. Given the high population growth rates of these

districts, it is imperative that something be done to improve the economic base of these districts and, at the same time, to address the high population growth rates that exist. Rural development projects focusing on the upliftment of women would contribute towards addressing these problems.

Apart from the district of Namagkale that has a 51,08% urbanisation level, all the other former homeland districts have a low level of urbanisation. The level of urbanisation in the remaining 20 districts ranges from 0% in Bochum and Mutale to 14,62% in Seshego (Table 1a). The average level of urbanisation in these 20 districts is 5,14%. The low level of urbanisation coupled with high population densities in the former homeland districts is a cause of concern as it is an indication of the high pressure being placed on the rural resource base. Land that could be used for food production is being used to accommodate people. In addition, the agricultural sector is unable to provide sufficient jobs for the population living there. The high rural population densities result in overutilisation and degradation of land and other natural resources such as wood for fuel. There are not sufficient clean water sources for the population. This poses health risk and is the cause of the relatively high infant mortality rates. In times of drought the populations in many of these districts rely on water being transported to them. Planning for future population pressure needs to focus on agricultural development, as well as provision of alternative employment opportunities and alternative fuel and water supplies.

Table 1a: Selected population statistics of Northern Province priority districts

DISTRICT	OLD PROV.	TOTAL POP. 1991	% 0 TO 14 YEARS	FEM:MALE 15 TO 64 yrs	%URBAN POP.	POP. DENSITY
Malamulele	Gazankulu	179 326	56,82	1,84	2,79	137,943
Bochum	Lebowa	149 869	54,12	1,77	0,00	61,497
Giyani	Gazankulu	212 226	54,00	1,57	7,10	77,483
Mhala	Gazankulu	253 297	53,54	1,59	5,07	168,080
Hlanganani	Gazankulu	127 450	52,95	1,68	3,57	275,270
Sekgosese	Lebowa	124 425	52,33	1,66	1,46	209,823
Bolobedu	Lebowa	196 669	51,88	1,67	3,91	177,499
Mokerong	Lebowa	446 155	51,51	1,54	6,65	120,322
Mutale	Venda	54 787	49,43	1,87	0,00	27,136
Vuwani	Venda	135 823	49,22	2,01	0,28	211,892
Nebo	Lebowa	324 909	49,02	1,65	5,72	118,364
Naphuno	Lebowa	167 665	48,97	1,44	5,63	181,456
Mapulaneng	Lebowa	215 250	48,66	1,48	4,15	236,538
Seshego	Lebowa	302 676	48,51	1,44	14,62	102,498
Ritavi	Gazankulu	143 702	48,20	1,38	9,66	255,698
Thabamoopo	Lebowa	353 193	48,00	1,36	9,20	132,134
Sekhukhuncland	Lebowa	404 335	47,91	1,49	2,59	101,185
Dzanani	Venda	119 463	47,78	2,03	0,64	80,177
Thohoyandou	Venda	232 456	47,43	1,84	8,67	98,624
Lulekani	Gazankulu	38 770	46,35	1,06	11,20	45,936

Conclusion

This chapter gives an overview of the population dynamics in the Northern Province, focusing on problems related to population pressure. A clear distinction can be drawn between former homeland areas and former white areas in this province. The former homeland areas are characterised by high population densities and high population growth rates in sharp contrast with the low densities and growth rates of the population in former white districts. In addition, with the exception of Namakgale, the former homeland districts also have high youth dependency ratios with above 46% of the population falling into the 0-14 year age bracket, as well as imbalances in female:male ratios with a greater number of potentially economically active females than males, and low levels of urbanisation i.e. below 15% of the population being urbanised. These are considered to be important factors in planning for future population pressure in the province.

K.A. Leslie
(Formerly of the University of Venda)

MAP 1 : TOTAL POPULATION

Source : 1991 Census

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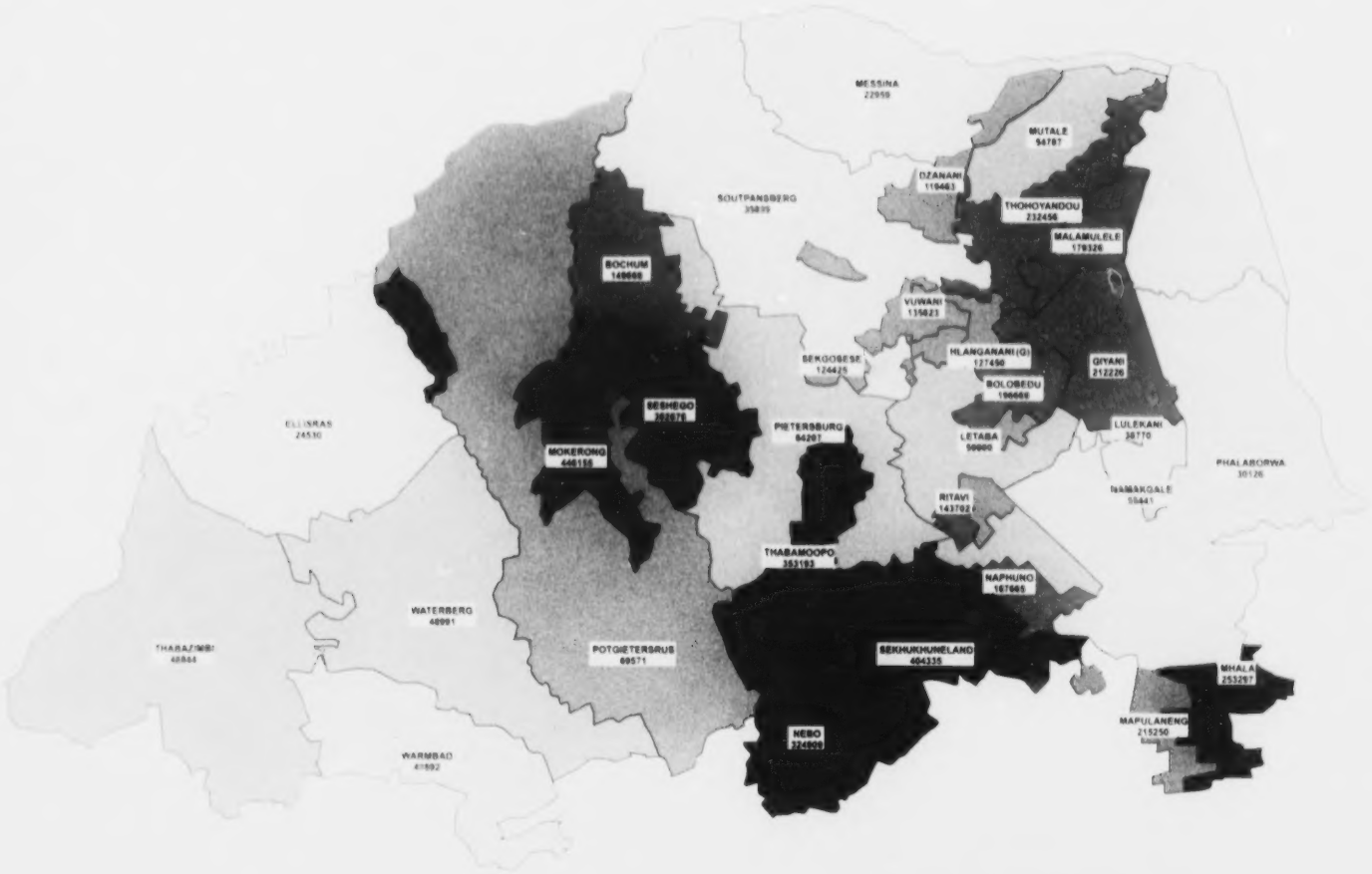

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Table 1 Total population

DISTRICT	TOTAL POPULATION
Bochum	149 869
Bolobedu	196 669
Dzanani	119 463
Ellisras	24 530
Giyani	212 226
Hlanganani	127 450
Letaba	59 900
Lulekani	38 770
Malamulele	179 326
Mapulaneng	215 250
Messina	22 959
Mhala	253 297
Mokerong	446 155
Mutale	54 787
Namakgale	55 441
Naphuno	167 665
Nebo	324 909
Phalaborwa	30 126
Pietersburg	64 207
Potgietersrus	69 571
Ritavi	143 702
Sekgosese	124 425
Sekhukhuneland	404 335
Seshego	302 676
Soutpansberg	35 839
Thabamoopo	353 193
Thabazimbi	48 844
Thohoyandou	232 456
Vuwani	135 823
Warmbad	41 692
Waterberg	48 991

MAP 2 : POPULATION DENSITY

Source : 1991 Census

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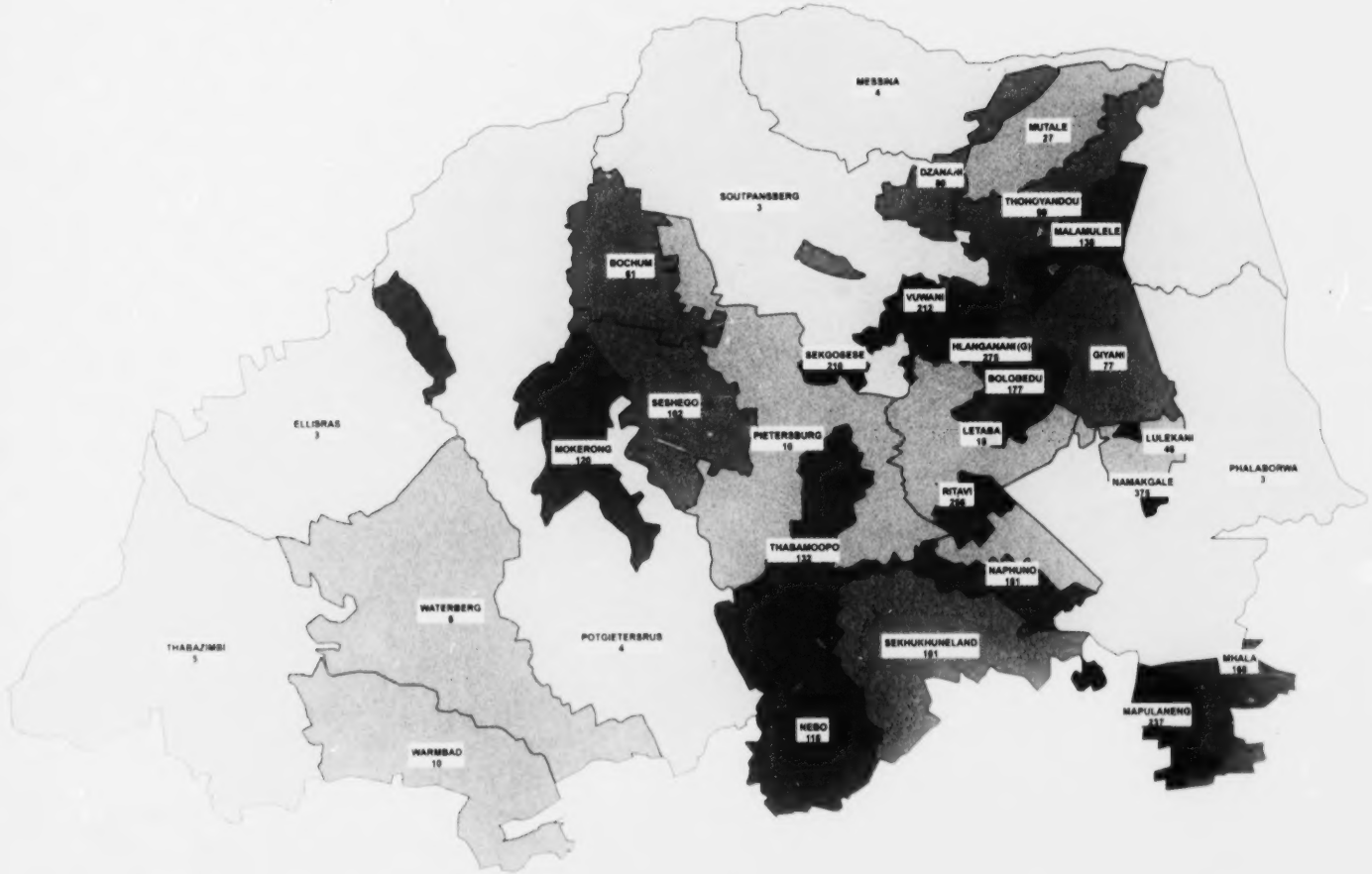

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Population per square km

	3 to 5
	5 to 46
	46 to 102
	102 to 181
	181 to 375

KM

100

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Table 2 Population density

DISTRICT	TOTAL POPULATION	AREA	POPULATION DENSITY
Bochum	149 869	2437	61
Bolobedu	196 669	1108	177
Dzanani	119 463	1490	80
Ellisras	24 530	7363	3
Giyani	212 226	2739	77
Hlanganani	127 450	463	275
Letaba	59 900	3366	18
Lulekani	38 770	844	46
Malamulele	179 326	1300	138
Mapulaneng	215 250	910	237
Messina	22 959	5338	4
Mhala	253 297	1507	168
Mokerong	446 155	3708	120
Mutale	54 787	2019	27
Namakgale	55 441	148	375
Naphuno	167 665	924	181
Nebo	324 909	2745	118
Phalaborwa	30 126	11126	3
Pietersburg	64 207	6201	10
Potgietersrus	69 571	16095	4
Ritavi	143 702	562	256
Sekgosese	124 425	593	210
Sekhukhuneland	404 335	3996	101
Seshego	302 676	2953	102
Soutpansberg	35 839	14201	3
Thabamoopo	353 193	2673	132
Thabazimbi	48 844	10599	5
Thohoyandou	232 456	2357	99
Vuwani	135 823	641	212
Warmbad	41 692	4366	10
Waterberg	48 991	8156	6

6.2 Employment

Definition

The economically active population (also called the labour force) consists firstly of the employed, that is people who have secured some kind of formal paid employment. Secondly, it also includes people who have small unregistered businesses in the informal sector, such as roadside stalls selling fresh produce. Thirdly, it includes the unemployed. The map is based only on the formal employment figures as people in the formal sector are more likely to earn a "living wage". People in the informal sector will often accept the first available formal sector job given the fickle nature and low earnings of the informal sector.

The map shows the formally employed as a percentage of the adult population aged 15 to 64. Using the adult population rather than the more commonly used labour force can be misleading as the resulting rates of employment will be artificially low. On the one hand, the total adult population does include people, mainly women, who work in the subsistence agricultural sector. (This is only relevant in the former homelands.) However, it also includes people who are generally not available for employment. These people include housewives who do not want to work, full-time students, those who have taken early retirement, and so forth. The student component may be quite large as the adult population is defined as people aged 15 or older. Fifteen year olds are likely to remain at school for a few years, and their age group, 15 to 19, is particularly large. In addition, at the time of the census women could get a state pension at age 63, which would have encouraged early retirement in poorer communities.

As many families of migrant workers live in the dormitory areas, it is likely that there could have been a number of migrants in the dormitory area at the time of the census. Given that many migrants have one month leave a year, the percentage of "resting" migrants could well have been close to 8%. When polled, these migrants would have shown up as employed workers, thus artificially inflating the employment figures in the former homelands. The employment figures in the homelands could have been adjusted downwards to eliminate this phenomenon and to balance the total employment figures it would have been necessary to adjust the employment in the towns upwards to include the resting migrant workers. However, as there was no way of knowing where these migrants may have worked (it could even have been in another province), any adjustment to urban employment figures would have been guesswork. This approach was therefore not followed for the Northern Province.

Data sources

The figures used in the calculation of the employment rates were drawn from the 1991 Population Census of the Central Statistical Service. This census is the most recent source of information regarding economic activity on a district level. The 1991 Census has come under scrutiny because of an apparent undercount of the population. The undercount was more severe in the informal settlements in metropolitan areas and in the semi-urban settlements in the deep rural areas. Therefore, data for the small and medium-sized towns found in the Northern Province seem quite accurate, but figures for the former homelands may be too low.

Patterns of employment

As noted, the Northern Province consists of a section of the former Transvaal province, as well as three former homelands, Venda, Gazankulu and Lebowa. The latter areas functioned as dormitories, while most employment opportunities occurred in the formerly white districts of the province. These districts consequently had the highest employment rates at the time of the census. In these areas rates of employment ranged between 47% and 68% of the adult population. The rates of formal employment as a percentage of the people who actually wanted to work, that is the economically active population or labour force as defined above, were between 70% and 78%. Not surprisingly, the commercial agriculture and mining districts (which attracted migrant workers) had very high rates of employment. For instance, the Letaba district, home to significant commercial agriculture, employed 68% of its adult population or 77% of its labour force. The mining towns of Thabazimbi and Phalaborwa employed over 65% of the adult population and again over 77% of the labour force.

In the former homelands the highest rate of employment was predictably in Namakgale which is virtually surrounded by the Phalaborwa district. This district could offer employment to 31% of its adult population and 65% of its labour force. Employment prospects in the other rural districts were bleak, and only between 9% and 20% of the adult population could find work. The difference between using the adult population and the labour force in the calculation of employment rates shows up clearly in these figures. For example, Hlanganani could only employ less than 10% of the adult population but these people formed 47% of its labour force. It is obvious from the figures that this district has a large subsistence agricultural sector.

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Development Bank of Southern Africa

MAP 3 : PERCENTAGE 15 TO 64 YEAR OLDS EMPLOYED

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Source : 1991 Census

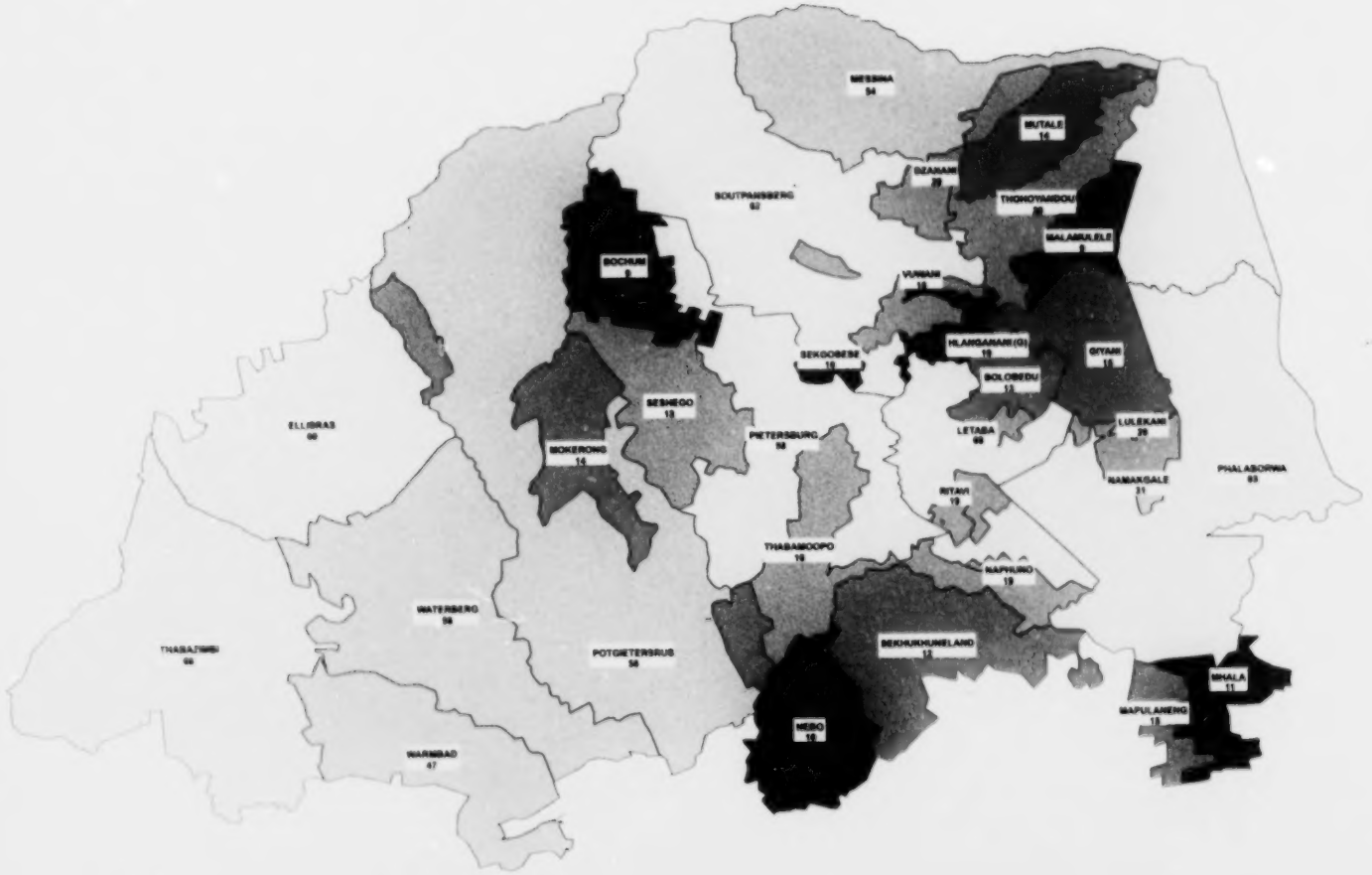

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Table 3 Percentage 15 to 64 year olds employed

DISTRICT	15 TO 64 YEARS	FORMALLY EMPLOYED	% FORMALLY EMPLOYED	% 15 TO 64 YEARS OLD EMPLOYED
Bochum	62 384	5 792	40,1	9,3
Bolobedu	87 634	11 121	53,1	12,7
Dzanani	55 655	10 940	58,5	19,7
Ellisras	16 999	10 256	74,4	60,3
Giyani	91 829	13 783	49,7	15,0
Hlanganani	55 114	5 228	47,0	9,5
Letaba	42 771	29 110	77,4	68,1
Lulekani	20 382	4 038	41,7	19,8
Malamulele	71 627	6 570	43,7	9,2
Messina	14 899	7 984	70,2	53,6
Mhala	110 746	11 592	45,0	10,5
Mokerong	196 966	28 134	50,6	14,3
Mapulaneng	104 095	15 881	47,5	15,3
Mutale	24 444	3 352	46,7	13,7
Namakgale	29 881	9 264	65,0	31,0
Naphuno	79 736	14 718	52,5	18,5
Nebo	152 302	15 381	36,4	10,1
Phalaborwa	22 136	14 310	77,0	64,6
Pietersburg	44 722	26 043	75,7	58,2
Potgietersrus	41 821	23 288	75,3	55,7
Ritavi	69 729	13 411	55,2	19,2
Sekgosese	53 905	5 268	42,5	9,8
Sekhukhuneland	197 475	23 818	43,0	12,1
Seshego	142 350	25 346	50,8	17,8
Soutpansberg	24 342	15 065	77,0	61,9
Thabamoopo	170 217	26 543	46,8	15,6
Thabazimbi	36 947	24 352	77,9	65,9
Thohoyandou	110 873	21 827	58,1	19,7
Vuwani	61 430	9 547	56,8	15,5
Warmbaths	24 612	11 652	69,9	47,3
Waterberg	28 975	16 080	76,0	55,5

6.3 Functional literacy

By functional literacy is meant the ability to read with understanding and write without the assistance of another person. This is the ability of people, more especially adults, to be independent of relatives when signing documents.

Functional literacy may be assessed by the number of people who have passed a certain standard, for example Standard 4. In the past these people would have been given a certificate of competence after passing a formal external standardised examination. The level of competency would have been indicated by the "class" obtained by the individual.

The best off districts regarding functionally literate people are Pietersburg (59%), Phalaborwa (50%), Ellisras (48%), and Thabamoopo (43%). Seshego, Thabazimbi, Warmbad, and Namakgale all fall in the 42% range and are also relatively well off districts.

Lulekani (23% - the worst off district), Giyani (26%), Mhala (27%), and Malamulele (27%) are all rural districts of the former Gazankulu with very few functionally literate people. Bolobedu (29%) of the former Lebowa also has a high percentage of illiterate people.-

Mr Tladi and Mr N.M. Nghatsane
Department of Education

MAP 4 : PERCENTAGE FUNCTIONAL LITERACY : ADULTS WITH AT LEAST STANDARD 4 EDUCATION

Source : 1991 Census

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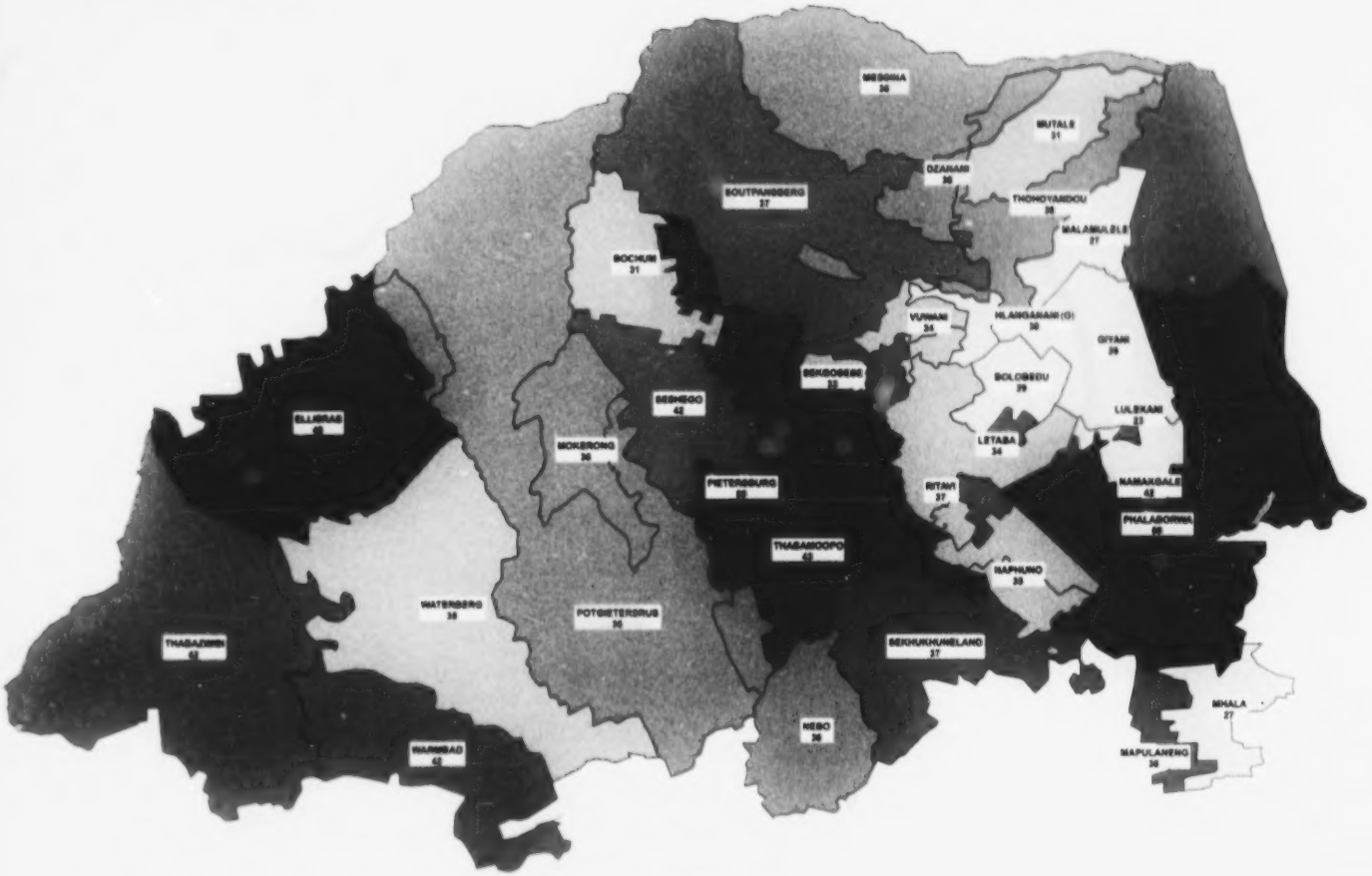

N

% functional literacy

	23 to 30
	30 to 35
	35 to 36
	36 to 42
	42 to 59

KM

100

40

Table 4 Percentage functional literacy: Adults with at least Standard 4 education

DISTRICT	15 TO 64 YEARS	% FUNCTIONAL LITERACY
Bochum	62 384	31
Bolobedu	87 634	29
Dzanani	55 655	36
Ellisras	16 999	48
Giyani	91 829	26
Hlanganani	55 114	30
Letaba	42 771	34
Lulekani	20 382	23
Malamulele	71 627	27
Mapulaneng	104 095	38
Messina	14 899	36
Mhala	110 746	27
Mokerong	196 966	36
Mutale	24 444	31
Namakgale	29 881	42
Naphuno	79 736	35
Nebo	152 302	36
Phalaborwa	22 136	50
Pietersburg	44 722	59
Potgietersrus	41 821	36
Ritavi	69 729	37
Sekgosese	53 905	33
Sekhukhuneland	197 475	37
Seshego	142 350	42
Soutpansberg	24 342	37
Thabamoopo	170 217	43
Thabazimbi	36 947	42
Thohoyandou	110 873	36
Vuwani	61 430	34
Warmbad	24 612	42
Waterberg	28 975	35

6.4 Poverty gap

Definition

The poverty gap does not measure the number of people living in poverty. It is rather a measure of how poor people are. Unlike a headcount ratio, which counts only the number of people living below the poverty line, the poverty gap measures how far each individual is below the poverty line. It therefore measures how much money is needed to bring each poor person's income up to the poverty line in a given year. **The poverty gaps shown on the map were calculated for a poverty line of R840 per month for a household with two adults and three children in urban areas, and R740 for the same household in rural areas**.

Poverty gaps for districts can be misleading as they take no account of the number of people in the district. Such figures can therefore not be used to show that one district is worse off than another on average. Generally districts with large populations have high poverty gaps. This does not mean that the people in such a district are particularly poor; it may just mean that there are many people in the district who are all slightly below the poverty line. A district with a smaller population may have a lower poverty gap, but each individual may be much further below the poverty line. For this reason, the figures on the map are supplemented by per capita poverty gaps. These are calculated by dividing the annual poverty gap by the number of people in a district.

Data sources

The figures used in the calculation of the poverty gaps were drawn from the 1993 Living Standards and Development Survey (LSDS). This survey was funded in part by the World Bank and was conducted by the Southern African Labour and Development Research Unit (SALDRU) at the University of Cape Town. This survey was relatively small, covering around 9 000 households, and its provincial coverage was not uniform. In its 1995 publication *A profile of poverty, inequality and human development* (Whiteford, Posel & Kelatwang), the Human Sciences Research Council (HSRC) used the LSDS as a basis for its calculation of the poverty gap for each of the former TBVC states, as well as for the remaining parts of the nine provinces. In the latter areas the total poverty gap followed the same distribution pattern as the poverty gap in the census. Since the former TBVC states had not been covered by the 1991 census and were inadequately covered by the LSDS, a poverty index based on population and estimated income was used to determine the structure of the poverty gap in the districts of the former TBVC states. The methods used by the HSRC were understandably complex given the paucity of data. Nevertheless, the resulting figures for the magisterial district level should be interpreted with caution as they can provide only a broad overview of the general situation. The population figures used in the calculation of the poverty gap are straightforward projections from the 1991 Census.

Patterns of poverty

As noted, the Northern Province has a dualistic socio-economic character. It consists of a section of the former Transvaal province, as well as three former homelands, Venda, Gazankulu and Lebowa. All socio-economic indicators show that the former

white Transvaal portion of the province is far better off than the former homelands that functioned as dormitory areas for the towns.

Pietersburg is a good example of the dualism in the province. According to the HSRC calculations, on a per capita basis it had one of the lowest poverty gaps - only R213 per person per year. The population was under 70 000 and the annual poverty gap under R14 million. However, Pietersburg's borders were artificially redrawn during the apartheid era. Many of its workers lived in neighbouring Seshego and Thabamoopo. The combined population of these two districts was 655 869 people in 1991 and their combined poverty gap was over R400 million. On a per capita basis each individual in these districts, whether young or old, needed R607 and R653 per year respectively just to reach the minimum living level. This pattern of relative affluence in the main towns combined with poverty in the dormitory areas is visible in much of the rest of the province.

The per capita poverty gaps of the former Transvaal districts of the Northern Province range between R213 and R429 per year. In the former homeland of Venda the range is R522 to R590. The former homelands of Lebowa and Gazankulu show the highest levels of per capita poverty. The exception is Namakgale, the twin district of the mining town Phalaborwa, where the poverty gap is only R353 per person per year. In the remaining districts, the poverty gaps range between R607 and R764.

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Development Bank of Southern Africa

MAP 5 : POVERTY GAP PER CAPITA

Source : Whiteford et al 1995

HSRC
RGN
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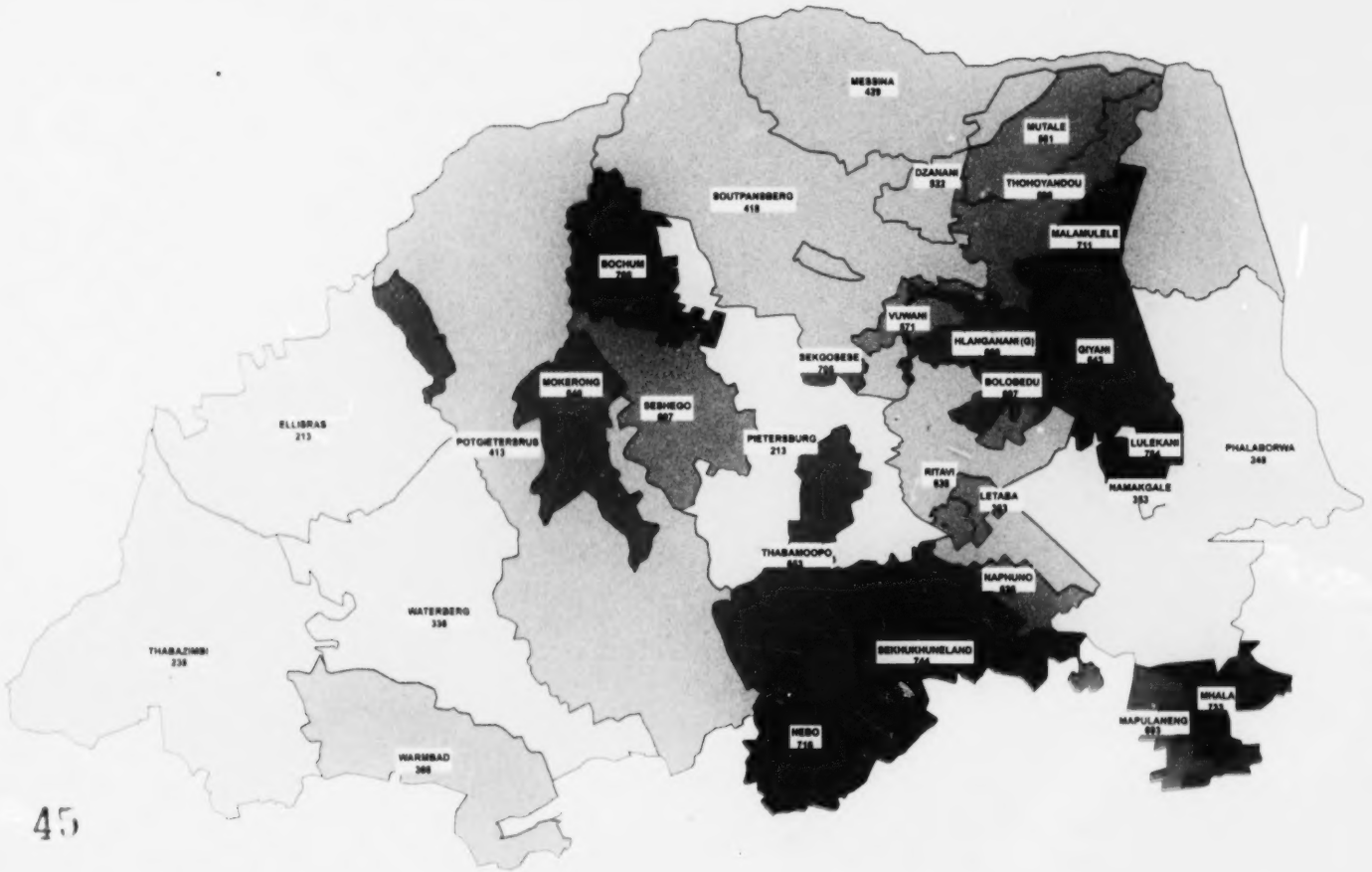

Poverty gap (R's)

213	to	353
353	to	522
522	to	638
638	to	705
705	to	764

N

KM

100

Table 5 Poverty gap per capita

DISTRICT	TOTAL POPULATION	POVERTY GAP (R1000)	PER CAPITA POVERTY GAP (R)
Bochum	149 869	106 153	708
Bolobedu	196 669	137 108	697
Dzanani	119 463	62 348	522
Ellisras	24 530	5 221	213
Giyani	212 226	136 463	643
Hlanganani	127 450	84 158	660
Letaba	59 900	22 948	383
Lulekani	38 770	29 617	764
Malamulele	179 326	127 465	711
Mapulaneng	215 250	149 181	693
Messina	22 959	9 854	429
Mhala	253 297	185 596	733
Mokerong	446 155	285 715	640
Mutale	54 787	31 817	581
Namakgale	55 441	19 577	353
Naphuno	167 665	105 037	626
Nebo	324 909	232 663	716
Phalaborwa	30 126	7 469	248
Pietersburg	64 207	13 696	213
Potgietersrus	69 571	28 717	413
Ritavi	143 702	91 644	638
Sekgosese	124 425	87 768	705
Sekhukhuneland	404 335	300 730	744
Seshego	302 676	183 718	607
Soutpansberg	35 839	14 989	418
Thabamoopo	353 193	230 498	653
Thabazimbi	48 844	11 615	238
Thohoyandou	232 456	137 040	590
Vuwani	135 823	77 571	571
Warmbad	41 692	15 267	366
Waterberg	48 991	16 462	336

6.5 Dependency ratio

Definition

The dependency ratio measures how many people each economically active person has to support in addition to him or herself. It is calculated by dividing the number of economically active people by the rest of the population. The latter group includes children, aged people, students, housewives and other people who may not want to be employed. Note that it does not include the unemployed, i.e. those who want to be employed but cannot find employment. People who are unemployed or who have small businesses in the informal sector are defined as being part of the economically active population. Therefore, the economically active population consists of the employed (people in formal paid employment), those in the informal sector and the unemployed. People who are unemployed per definition cannot support their families and people who are in the informal sector also probably do not earn enough to support other family members. Therefore, the dependency ratio understates the true extent of dependency.

Data sources

The figures used in the calculation of the dependency ratios were drawn from the 1991 Population Census of the Central Statistical Service. This census is the most recent source of information regarding economic activity on a district level. The 1991 Census has come under scrutiny because of an apparent undercount of the population. The undercount was more severe in the informal settlements in metropolitan areas and in the semi-urban settlements in the deep rural areas. Therefore, data for the small and medium-sized towns found in the Northern Province seem quite accurate, but figures for the former homelands may be too low.

Patterns of dependency

The Northern Province consists of a section of the former Transvaal province, as well as three former homelands, Venda, Gazankulu and Lebowa. All socio-economic indicators show that the former white Transvaal portion of the province is far better off than the surrounding former homelands. The homelands functioned as dormitory areas, while the former Transvaal areas offered virtually the only employment opportunities. This resulted in the workers leaving the dormitory areas in search of employment, while members of the extended family remained behind. As a result, there are relatively few workers in the rural areas, and the number of non-working people is rather high. This results in high dependency ratios in the homelands and lower ratios in the former white portions of the province.

These facts are borne out by the figures in the map. The former Transvaal districts all have dependency ratios of 1,5:1 or lower. Some of these districts even have dependency ratios of as low as 0,6:1. The districts with the lowest dependency ratios are those where mining and commercial agriculture occur on a significant scale. Owing to the migrant labour system of the apartheid era, these areas attracted single miners and non-residential farm workers. In the census these migrant workers were counted as part of the supporting population of the towns where they worked though they may not even have supported any people in that district at all, having chosen

rather to remit at least part of their income to their families in rural areas. Thus they artificially improved the dependency ratios of the districts where they worked. Given the intricacy of this double-rootedness, at least some of the migrants may have had second families in town. However, this is more likely when the migrants live far from home, such as in another province, and the practice is less common in areas where the towns are closer to the rural areas.

The map shown that in the former homelands dependency ratios range from around three additional people to nearly 11 additional people to be supported by each economically active person. Bearing in mind that the dependency ratios include the unemployed and informal sector workers in the supporting rather than the dependent population, even these relatively high figures still understate the extent of the problem. According to the census the unemployment rates were extremely high in the former homelands. For example, in the district of Mhala, around 38% of the economically active population was formally unemployed. In the same district, another 18% of the economically active population was engaged in informal sector activities that normally generated little income. The map shows the dependency ratio in Mhala to be already 8,8:1. If it is assumed that the unemployed and informal sector workers could not afford to support their families, the adjusted dependency ratio is as high as 20,9:1. This shows that 11 592 working people have, for all practical purposes, to support 241 705 people in addition to themselves. The problem is alleviated to some extent by the remittances received from migrant workers. However, these remittances are often not enough for the extended family to subsist on.

This is not the only problem faced by the people in the deep rural areas. Formal employment in the former homelands was mainly in government service which is being scaled down. Thus employment opportunities in the deep rural areas are likely to decrease even further and many people shown to be employed in the 1991 Census are likely to have lost their source of income in the meantime. This change in the employment/unemployment position will not be reflected in the dependency ratios, but is a crucial factor determining the extent of human suffering in the province.

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MAP 6 : DEPENDENCY RATIO

HSRC
RGN
GIS UNIT

Source : 1991 Census

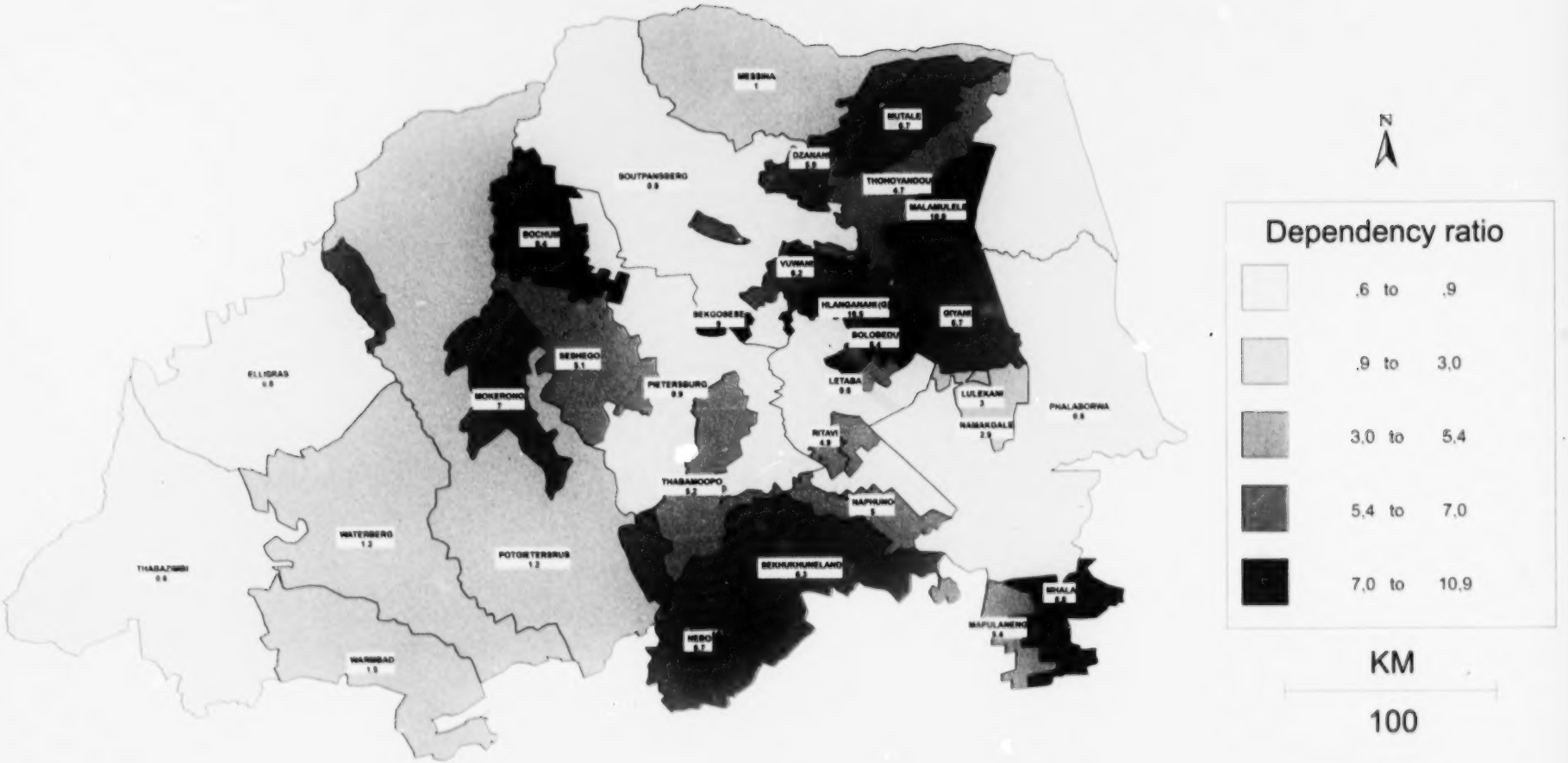


Table 6 Dependency ratio

DISTRICT	TOTAL POPULATION	ECONOMICALLY ACTIVE POPULATION	DEPENDENCY RATIO
Bochum	149 869	14 430	9,39
Bolobedu	196 669	20 933	8,40
Dzanani	119 463	17 225	5,94
Ellisras	24 530	13 789	0,78
Giyani	212 226	27 728	6,65
Hlanganani	127 450	11 128	10,45
Letaba	59 900	37 609	0,59
Lulekani	38 770	9 675	3,01
Malamulele	179 326	15 032	10,93
Mapulaneng	215 250	33 447	5,44
Messina	22 959	11 366	1,02
Mhala	253 297	25 750	8,84
Mokerong	446 155	55 561	7,03
Mutale	54 787	7 156	6,66
Namakgale	55 441	14 249	2,89
Naphuno	167 665	28 022	4,98
Nebo	324 909	42 252	6,69
Phalaborwa	30 126	18 592	0,62
Pietersburg	64 207	34 420	0,87
Potgietersrus	69 571	30 945	1,25
Ritavi	143 702	24 280	4,92
Sekgosese	124 425	12 388	9,04
Sekhukhuneland	404 335	55 327	6,31
Seshego	302 676	49 930	5,06
Soutpansberg	35 839	19 575	0,83
Thabamoopo	353 193	56 710	5,23
Thabazimbi	48 844	31 252	0,56
Thohoyandou	232 456	41 101	4,66
Vuwani	135 823	18 817	6,22
Warmbad	41 692	16 670	1,50
Waterberg	48 991	21 163	1,31

6.6 Index of Need

As outlined in Section 4.2 high index scores are indicators of underdevelopment. The social variables selected to develop the Needs Index were the poverty gap, pupil:teacher ratio, dependency ratio, total households, and population density. A district not requiring development intervention based on this social needs index would have a low index score and the following social profile: a low poverty gap, low pupil:teacher ratio, low dependency ratio, low population densities and a high number of households. Conversely an underdeveloped district would have a high poverty gap, high pupil:teacher ratio, high dependency ratio, high population densities and a low number of households.

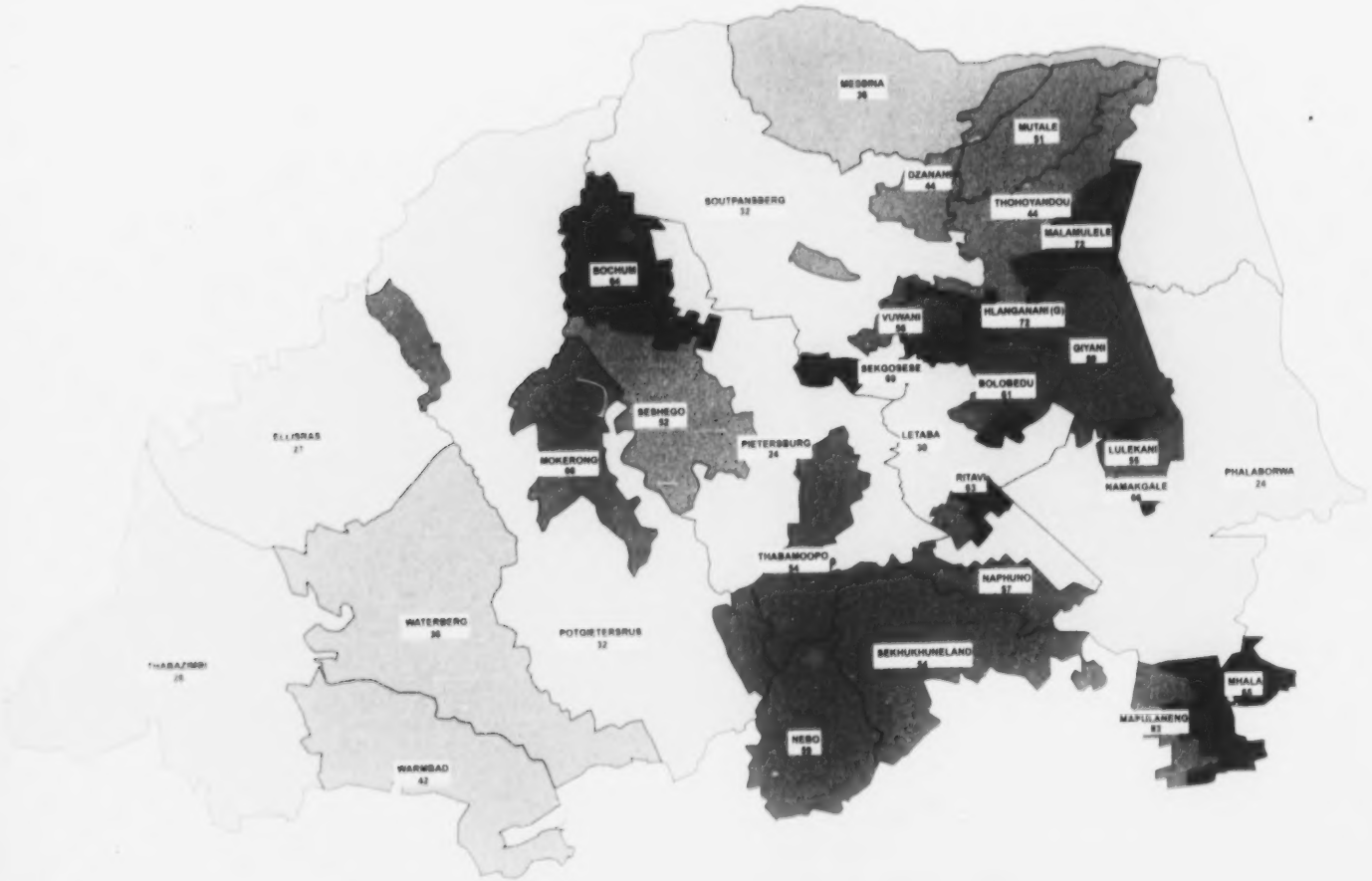
The Index of Need map for the Northern Province has five ranges. The ten former white Transvaal districts all fall into the two better developed ranges (24-43). The 21 former Black Lebowa, Venda and Gazankulu districts all fall into the three less developed ranges.

Pietersberg and Phalaborwa (both 24) are the most developed districts in terms of the Social Needs Index. Pietersberg, the capital and a former white Transvaal district, has a far higher level of development than its former black neighbours. The minimum and maximum differences in Needs Index scores between Pietersberg and its former black neighbours is 28 (Seshego) and 45 (Sekgosese). Phalaborwa, like Pietersberg, is better developed than its former black neighbours of Mhala, Mapulaneng, Namakgale, Lulekane, Ritavi and Naphuno. The range of differences in levels of development between Phalaborwa and these districts is from 33 to 42 Social Needs Index points.

The two worst off districts, Hlanganani and Malamulele (both 72), are situated in the north of the former Gazankulu. Compared with the other Gazankulu districts to the south, these two districts are between 11 and 13 Social Needs Index points less developed. North of Hlanganani and Malamulele is the Thohoyandou district of the former Venda which is better developed by 28 Social Needs Index points. The former white Transvaal districts of Soutpansberg and Letaba border on Malamulele and Hlanganani to the east, south and north-west, and are much better developed by a massive 40 and 42 Social Needs Index points, respectively.

MAP 7 : INDEX OF NEED

HSRC
RGN



N

Index

24	to	34	
34	to	43	
43	to	53	
53	to	62	
62	to	72	

KM

100

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Table 7 Index of Need

DISTRICT	SOCIAL INDEX
Hlanganani	72
Malamulele	72
Sekgosese	69
Namakgale	66
Mhala	65
Bochum	64
Ritavi	63
Mapulaneng	62
Bolobedu	61
Mokerong	60
Giyani	59
Nebo	59
Naphuno	57
Vuwani	56
Lulekani	55
Thabamoopo	54
Sekhukhuneland	54
Seshego	52
Mutale	51
Thohoyandou	44
Dzanani	44
Warmbad	42
Messina	36
Waterberg	36
Soutpansberg	32
Potgietersrus	32
Letaba	30
Thabazimbi	28
Ellisras	27
Pietersburg	24
Phalaborwa	24

7

PROVISION OF SERVICES IN THE NORTHERN PROVINCE

7.1 Education

This document was abridged from Education White Paper 2, The Organisation, Governance and Funding of Schools 1996. The provincial analysis was conducted by Mr Tladi (ABET co-ordinator) and Mr N. Nghatsane (statistics and research).

Introduction

"South Africa's pattern of school organisation, governance and funding, which is a legacy of the apartheid system, must be transformed in accordance with democratic values and practice, and the requirements of the Constitution" (Education White Paper 2, 1996:1). The constitution establishes a democratic national, provincial and local government order. All governments and public schools are to observe fundamental rights and protect fundamental freedoms, many of which have direct implications for decisions made by school governors and managements. The constitution also obliges governments to negotiate with school governing bodies before changing their rights, powers and functions. They are also to fund all public schools on an equitable basis in order to achieve an acceptable level of education.

The White Paper "Education and Training in a Democratic South Africa: First Steps to Develop a New System", approved by cabinet in February 1995, described the process of investigation and consultation that would be followed by the Ministry of Education in order to bring a new pattern of school organisation into existence. For this purpose, a representative review committee was announced. "The Review Committee's brief was to recommend to the Minister of Education a proposed national framework of school organisation and ownership, and norms and standards of school governance and funding which, in the view of the committee, are likely to command the widest possible public support, accord with the requirements of the Constitution, improve the quality and effectiveness of schools, and be financially sustainable from public funds" (Education White Paper 2, 1996:1).

Principles underlying a new framework

"The new structure of school organisation should create the conditions for developing a coherent, integrated, flexible national system which advances redress, the equitable use of public resources, an improvement in educational quality across the system, democratic governance, and school-based decision-making within provincial guidelines. The new structure must be brought about through a well-managed process of negotiated change, based on the understanding that each public school should embody a partnership between the provincial education authorities and a local community. The new structure of the school system must address the inheritance of inequality and ensure an equitable, efficient, qualitatively sound and financially sustainable system for all its learners" (Education White Paper 2, 1996:5).

"The huge disparities among South African schools require a new structure of school organisation. A system of governance which will be workable as well as transformative. Both organisational structure and governance must be adequately uniform and coherent, but flexible enough to take into account the wide range of school contexts, the significant contrasts in the material conditions of South African schools, the availability or absence of management skills, parent's experience or inexperience in school governance, and the physical distance of many parents from their children's schools. The South African population has a right to expect that a redesigned school system for a democratic South Africa will be manifestly new, more equitable, and empowering to all who have a direct stake in the success of schooling" (Education White Paper 2, 1996:6).

As a guide to negotiated change in the school system, the Ministry of Education therefore proposes that the new structure of school organisation, governance and funding must aim to

- "ensure both national coherence and the promotion of a sense of national common purpose in the public school system, while retaining flexibility and protecting diversity;
- enable a disciplined and purposeful school environment to be established, dedicated to a visible and measurable improvement in the quality of the learning process and learning outcomes throughout the system;
- enable representatives of the main stakeholders of the school to take responsibility for school governance, within a framework of regulation and support by the provincial education authorities;
- ensure that the involvement of government authorities in school governance is at the minimum required for legal accountability, and is based on participative management;
- enable school governing bodies to determine the mission and character or ethos of their schools, within the framework of Constitutional provisions affecting schools, and national and provincial school law;
- ensure that the decision-making authority assigned to school governing bodies is coupled with the allocation of an equitable share of public (budgetary) resources, and the right to raise additional resources, for them to manage;
- recognise that a governing body's right of decision-making is not linked to the ability of its community to raise resources;
- ensure both equity and redress in funding from public (budgetary) resources, in order to achieve a fair distribution of public funds and the elimination of backlogs caused by past unequal treatment;
- improve efficiency in school education through the optimum use of public financial (budgetary) allocations, and publicly-funded staff resources" (Education White Paper 2, 1996:6).

Application of the principles underlying the ministry's approach to school organisation, governance and funding will be a very complex matter. This is because any solution to the inheritance of injustice in the schools will be difficult to apply and will take time to work through the system. "Therefore, it is all the more important that policy goals be clearly stated on the basis of defensible principles, so that they may properly guide the practical decisions that will be required in the course of drawing up legislation, in the process of negotiation with school governing bodies and teachers'

organisations, and in the development of administrative arrangements to implement the new system" (Education White Paper 2, 1996:6).

The organisation of schools

The policy of the Ministry of Education is that there shall be just two broad categories of schools in future: public schools and independent schools.

Public schools comprise community schools, farm schools, state schools, and state-aided schools (including church schools, Model C schools, mine schools, and others). Collectively, these comprise just over 98% of the country's primary and secondary schools, and almost 99% of school enrolments (Education White Paper 2, 1996).

Public schools will have the following features in common:

- "Each public school will represent a partnership between the provincial education department and the local community;
- Public schools will be funded from public resources, that is, from provincial education department budgets, and with few exceptions their property will be owned by the state;
- The admission policies of public schools will be determined by governing bodies in consultation with provincial education departments, in terms of national norms and provincial regulations, and will uphold constitutionally guaranteed rights and freedoms;
- The mission policy, and character or ethos of each public school will be determined within national and provincial frameworks by a governing body comprising elected representatives of the main stakeholders of the school;
- The salaries of teachers in each public school will be paid by the provincial education department according to a staff provisioning scale, and such teachers will be appointed in each public school by the provincial education department on the recommendation of and in consultation with the school's governing body" (Education White Paper 2, 1996:8).

"**Independent schools** comprise private or independent schools. Together, these account for not quite 2% of primary and secondary schools, and about 1,2% of enrolments. The Ministry of Education's policy is that schools presently known as private schools will henceforth be known as independent schools. The independent schools sector is very small, but it is important and appears to be growing. Independent schools are privately owned schools that appoint their own teachers. All independent schools should be required by law to register with the provincial education department and to comply with the conditions of registration laid down by the province. Such regulation of independent schools through a registration process under provincial government law is consistent with international practice" (Education White Paper 2, 1996:9).

Governance in schools

"Governance policy for public schools is based on the core values of democracy. Governing bodies will have substantial decision-making powers, selected from a menu of powers according to their capacity. Teachers in public schools will be

employed by the provincial education departments on the recommendation of and in consultation with governing bodies. The intention is that all public schools will be granted a legal personality in recognition of the responsibilities of their governing bodies. Governing bodies in all schools need to make suitable arrangements to meet their responsibilities to learners with special education needs" (Education White Paper 2, 1996:9).

Schools in the independent sector have been established as educational trusts. They must comply with educational laws and regulations and register with provincial education departments. Conditions of registration should include approval of the school constitution, which should include provisions for governance. The ministry will support provincial legislation or other measures to encourage private school owners, directors or trustees to introduce representative governing body or consultative arrangements in their own schools, where they have not already done so.

The financing of schools

"The Review Committee proposed a new financial system for public schools based on a partnership between the government and communities, on the basis that nothing else is affordable under present conditions. In terms of these proposals, provincial budgets would be restructured to secure fundamental constitutional requirements and policy objectives. School operating costs would be funded partly by subsidy, and partly by income-related school fees which would be obligatory for all parents who could afford them. Poor parents would not pay fees, and no child would be refused admission to school. The same system would apply in the compulsory and post-compulsory phases, with a reduced per capita subsidy in the post-compulsory phase. The system should be reviewed after five years" (Education White Paper 2, 1996:19).

Meanwhile, progress has been made on three important measures relating to school finance.

- "A single learner-educator ratio. A single ratio on which provincial staff provision scales can be based must underlie an equitable school financing system. *On 29 September 1995, the Education Labour Relations Council (ELRC) signed an agreement on guideline learner-educator ratios of 40:1 in ordinary primary schools and 35:1 in ordinary secondary schools.* These ratios do not stipulate exact class sizes, but provide parameters within which each provincial bargaining chamber will negotiate staff provisioning scales for its schools. This is a major step towards equity in the provision of educators to all schools. Separate agreements will be negotiated for other institutions including special schools and technical schools.
- An Education Management Information System (EMIS). A steering committee was established by the Department of Education to oversee the development of an EMIS. The committee comprises representatives of the national and provincial departments of education, the organised teaching profession, and a number of NGO and academic research units. By providing information to all ten departments of education, the new EMIS will support budgetary and personnel planning for 1996/97.
- A School Index of Needs. The index is required as a planning tool for departments of education. It will be compiled on the basis of a census of all 29 000 schools in

the country, and will supplement the data gathered for the EMIS. The index will enable provincial departments, their regional and district offices, and school communities, to make more informed and equitable decisions about financial allocations to schools, for expenditure on redress and quality improvement" (Education White Paper 2, 1996:24).

7.1.1 Pupil:teacher ratios

The Northern Province comprises the former Lebowa, Gazankulu, Venda and parts of the provincial administration. The former homelands have relatively high population densities. These contribute to a large extent to high pupil:teacher ratios.

The homelands were largely rural communities that were expected to build their own schools and the slow rate at which they could do this contributed to the high pupil:teacher ratio. This high ratio made effective teaching difficult and contributed to a high failure rate which, in turn, contributed to even higher pupil:teacher ratios and perpetuated the circle.

Districts like Lulekani, Soutpansberg, Namakgale, Giyani, and Malamulele are largely farming areas where farm schools are found. It is common in these places to find only a principal and one or two teachers running a combined primary school i.e. from Sub A to Standard 5. Ritavi, Malamulele, Lulekani, Giyani and Mapulaneng have high pupil:teacher ratios largely because of the influx of Mozambicans.

A contributing factor to the low standard of education in many parts of the Northern Province is the lack of education facilities. In some communities the bare essentials such as school buildings are rare. Pupils attend classes under trees or are housed in shacks that are not conducive to learning. Another contributing factor is the high pupil:teacher ratio. Some teachers are expected to teach up to 95 pupils per class. Congestion in such cases forces the slower learners to drop out early and those who progress to the next class are often not yet competent enough. The result is that the standard of education is lowered because the teacher is sometimes compelled to pass a certain percentage of the class. The department has undertaken to build more schools with the help of the RDP and NGOs. The "Invest in a School" Campaign gave a platform to the private sector to lend a hand.

Having noted that most pupils repeat Standard 10 four or five times, the Department of Education has proposed a finishing school programme that caters for pupils who fail Standard 10.

Rural vs urban

According to the statistics of the Central Statistical Service, the provision of education is less favourable in the rural areas than in the urban areas. Most of the literate rural people migrate to the urban areas leaving the most illiterate to fend for themselves. The larger towns attract middle-class citizens. In the rural areas there are no facilities like water and electricity, while the availability of these in the urban areas makes the use of modern facilities possible and hence enhances the quality and standard of education. The question of rationalisation and redeployment should help to strike a balance between rural and urban areas.

To redress the imbalances of the past, the following should be implemented:

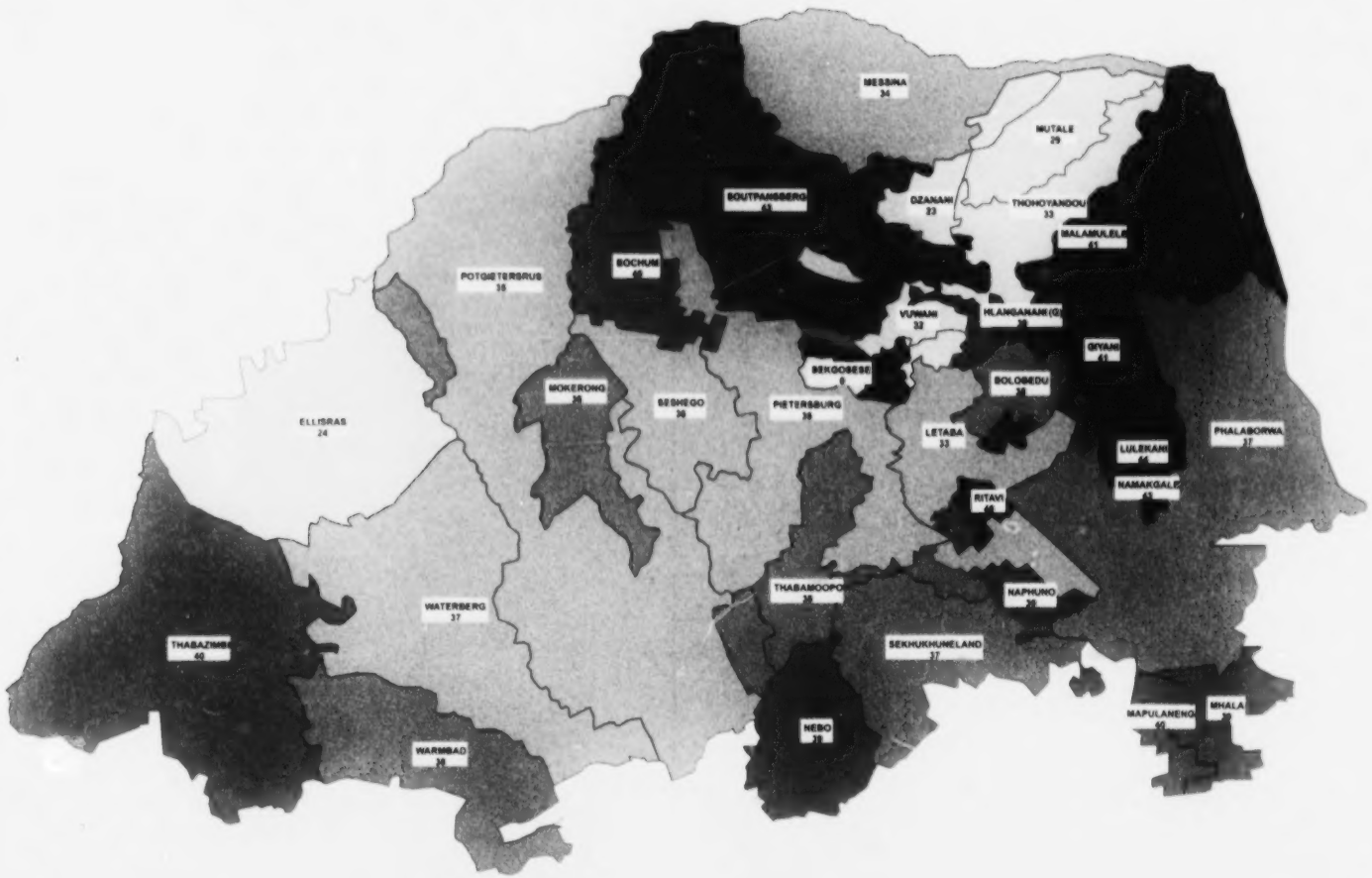
- Provision of classrooms for learners
- Lowering of pupil:teacher ratio
- Supply of basic facilities to rural areas

Mr Tladi and Mr N.M. Nghatsane
Department of Education

MAP 8 : AFRICAN PUPILS PER TEACHER

Source : CSS

HSRC
RGN
GIS UNIT



N

Pupil:teacher ratio

	1 to 33
	33 to 37
	37 to 39
	39 to 40
	40 to 44

KM

100

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Table 8 Total African pupils per teacher

DISTRICT	TEACHERS	AFRICAN PUPILS	AFRICAN PUPIL:TEACHER RATIO
Bochum	1 320	52 375	40
Bolobedu	2 946	113 369	38
Dzanani	2 376	55 054	23
Ellisras	3	71	24
Giyani	1 753	71 754	41
Hlanganani	1 150	44 695	39
Letaba	170	5 658	33
Lulekani	154	6 802	44
Malamulele	1 592	64 643	41
Mapulaneng	1 832	72 581	40
Messina	119	4 084	34
Mhala	2 592	101 969	39
Mokerong	4 057	153 163	38
Mutale	856	25 112	29
Namakgale	44	1 893	43
Naphuno	1 676	64 717	39
Nebo	3 280	126 616	39
Phalaborwa	4	148	37
Pietersburg	91	3 251	36
Potgietersrus	285	9 986	35
Ritavi	1 212	48 748	40
Sekgosese	0	0	0
Sekhukhuneland	4 441	163 239	37
Seshego	2 942	105 594	36
Soutpansberg	144	6 211	43
Thabamoopo	3 174	119 196	38
Thabazimbi	110	4 365	40
Thohoyandou	3 099	102 451	33
Vuwani	1 240	39 869	32
Warmbad	224	8 437	38
Waterberg	330	12 061	37

7.1.2 Adult literacy

The backlog in literacy in the Northern Province needs urgent attention. Those involved in present programmes come to lessons only to master the writing of their names. Tuition needs to be upgraded to a level where the tutors' efforts can be measured by results at the end of a term or year. Those who benefit from the present system are mainly the unemployed and they spend most of their time looking for work.

It is suggested that programmes such as finishing centres, youth colleges and a community college receive urgent attention.

The map shows that districts of the former Venda, Gazankulu, and Lebowa are worst off in terms of service provision. Rural districts such as Lulekani (29%), Letaba (34%), Thabazimbi (39%), and Giyani (39%) are the worst of these. Lulekani, Letaba and Giyani form a cluster in the east of the Northern Province. The best off districts form two clusters: Pietersburg (74%), Thabamoopo (67%), and Seshego (65%) form one and Phalaborwa (58%) and Namakgale (56%) the other.

Mr Tladi and Mr N.M. Nghatsane
Department of Education

MAP 9 : PERCENTAGE ADULTS BETWEEN 15 AND 64 YEARS WITH STANDARD 6 OR HIGHER EDUCATION

Source : 1991 Census

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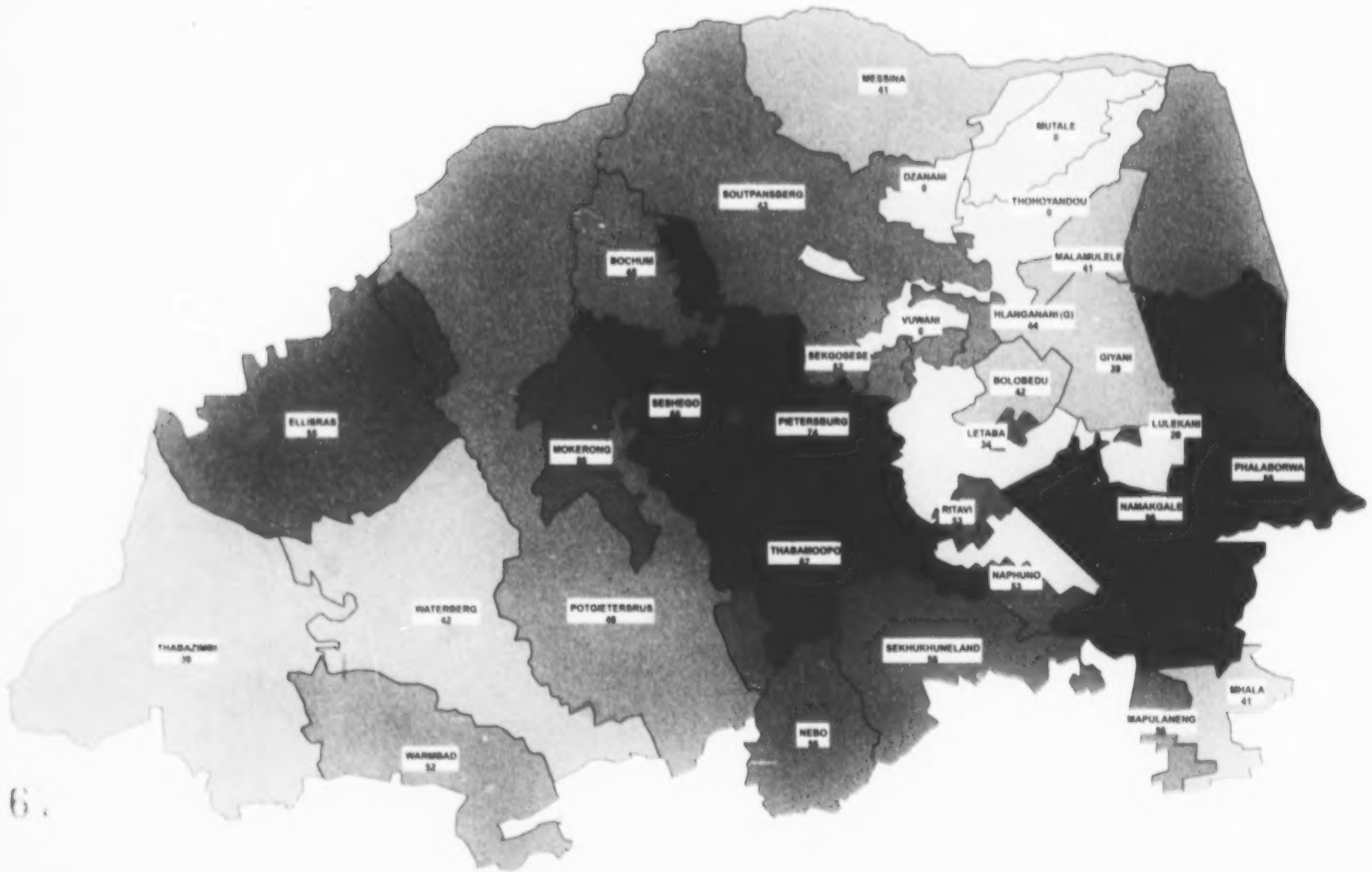

Table 9 Percentage adults between 15-64 years with Standard 6 or higher education

DISTRICT	TOTAL ADULTS (15-64 YRS)	ADULTS (15-64 YRS) WITH SECONDARY ED.	ADULTS (15-64 YRS) WITH TERTIARY ED.	% ADULTS (15-64 YRS) WITH STD 6 OR HIGHER ED.
Bochum	62 384	28 934	1 195	48
Bolobedu	87 634	35 206	1 780	42
Dzanani	55 655	0	0	0
Ellisras	16 999	7 965	1 386	55
Giyani	91 829	33 245	2 189	39
Hlanganani	55 114	23 350	1 132	44
Letaba	42 771	12 344	2 089	34
Lulekani	20 382	5 806	187	29
Malamulele	71 627	28 115	1 376	41
Mapulaneng	104 095	55 967	2 585	56
Messina	14 899	5 572	491	41
Mhala	110 746	43 680	1 881	41
Mokerong	196 966	105 600	4 177	56
Mutale	24 444	0	0	0
Namakgale	29 881	15 914	684	56
Naphuno	79 736	40 472	2 070	53
Nebo	152 302	80 825	4 116	56
Phalaborwa	22 136	10 654	2 208	58
Pietersburg	44 722	28 266	5 020	74
Potgietersrus	41 821	16 808	2 271	46
Ritavi	69 729	34 777	1 852	53
Sekgosese	53 905	26 957	1 118	52
Sekhukhuneland	197 475	104 362	5 267	56
Seshego	142 350	88 504	3 672	65
Soutpansberg	24 342	8 948	1 522	43
Thabamoopo	170 217	107 693	6 235	67
Thabazimbi	36 947	12 862	1 394	39
Thohoyandou	110 873	0	0	0
Vuwani	61 430	0	0	0
Warmbad	24 612	11 556	1 229	52
Waterberg	28 975	10 705	1 435	42

7.1.3 Pre-school education

This discussion is broken down into the following sections:

- Introduction; current concerns; first six years; survival rates, failure and drop-out rates in the junior primary phases; goals and objectives of pre-school educare; developmental approach; and financing.
- Pre-school children; and guidelines for strategies.
- Pre-school education.
- Child development facilities in the Northern Province.

Introduction

"The shortage of affordable quality early childhood development services in South Africa is an issue that can no longer be ignored. Children, families, communities and the country all pay a price for the continued neglect of young children's development during the early years. It is clear that, in the long run, the consequences of a poorly run and underdeveloped early childhood provision system will manifest itself in educational underachievement, early school leaving and dropout, increased costs in the prevention of crimes committed by young people, and high rates of illiteracy and unemployment in adulthood" (Atmore, 1996:1).

The facts are well known.

- South Africa has a low overall early childhood services provision rate and where services are provided certain sections of the population are adequately catered for while other sections are not.
- The quality of early childhood services is also extremely poor in many cases, not because of a lack of interest but because of a total lack of resources and infrastructure.
- There are more than one million children aged 6-12 who do not attend school.
- Some 25% of all black (African, Indian and Coloured) children who start Sub A fail to complete the first year successfully.

Considering these factors, many parents are forced to make less than satisfactory arrangements for their children. Most detrimental to young children are the cases where parents leave their children alone at home while they go to work.

Single parents and poor families are in the worst position. However much they wish for quality and affordable services, these are not available.

The children of unemployed parents need access to early childhood development services too but because of a lack of availability and/or because of financial circumstances they are not able to obtain such services.

Young children must have the best quality care and education during this critical period. Working parents who leave their children in the care of others have the right to expect that their children will be safe and secure and will have a good quality educational start.

Correcting past imbalances

The majority of South Africa's children have not had the benefit of exposure to a good quality early childhood development (ECD) programme. At present only between 9 and 11% of children (birth to 6 years) have access to any ECD services.

"Amongst these, African children are most severely disadvantaged as a result of the discriminatory provision of ECD services by previously appointed governments. At present only 6% of African children from birth to 6 years of age have access to ECD services. This situation has to be drastically redressed and a more equitable scenario of access to ECD services will be established" (Interim Policy 1995:11).

Particular attention will be given to African children, girls in rural areas and to children of working and rural mothers.

The need to provide equal opportunities

"The transformation regarding the provisioning of ECD services has created high expectations amongst the communities. Children from privileged backgrounds enter the schooling system with a greater advantage than children from impoverished homes. Due to the discrepancies between the home and the school and negative schooling experiences, the vast majority of children in schools within impoverished neighbourhoods that provide a poor learning environment are disadvantaged. There is, therefore, a need to provide equal opportunities and access for all children" (Interim Policy 1995:12).

Current concerns

Services in South Africa have a number of strengths on which to build including

- the community-based approach,
- the existing non-formal training and support infrastructure,
- low cost and affordable provision models and options, and
- policy initiatives relating to early childhood development.

Despite these factors there is one overriding area of concern, namely the lack of high quality programmes at a price that parents can afford. The dearth of acceptable and affordable child care is one of the main reasons why women with young children who would like to take up paid employment do not do so (Atmore, 1996:1).

Pre-school children

Pre-school children from birth to six years of age are particularly vulnerable. There are approximately 9 947 000 children up to the age of nine years who are in need of early childhood development services.

"Children under the age of six are particularly vulnerable and in need of such services. They constitute 13% of the total South African population. Two-thirds live in rural areas. African children make up 83%, coloured children 7,3%, white children 7,6% and Indian children 1,9% of the total number of children in this age group. About 60%

of children of pre-school age live in impoverished circumstances. Of these, 90% are Africans who live in poorly resourced rural areas" (White Paper for Social Welfare).

Children from disadvantaged families are in particular need of early childhood development services. At present approximately only one in ten pre-school children are in early childhood development programmes. There is a lack of services for the age group from birth to three years old and for disabled children.

There is no acceptable set of minimum standards for the provision of services for pre-school children. Some programmes are inadequately resourced, thus the quality of care is consequently impoverished.

The first six years

"The first six years of life are of vital importance in the development of the young child. During these years the foundation is laid for the child's development. It is a period of the most intense physical and intellectual development. Development is also more rapid than during any other period of life and deprivation has lasting effects. Recognition of the importance of these early years and the benefits of access to programmes coupled with changes in the patterns of employment of women have resulted in the development of early childhood programmes and facilities throughout the world" (Atmore, 1996:2).

Early childhood development is an umbrella term used for the processes by which children grow from birth and develop physically, mentally, emotionally and socially. A variety of programmes provides opportunities for young children to develop fully and are aimed at giving the young child the best possible preparation for the future.

The foundation of a child's ability to learn and succeed in life is laid during this phase. It is the result of appropriate care that addresses the mental, physical, social and emotional needs of the child. Interventions that provide such care and help strengthen the contexts in which children live, including strengthening the family, the community, and the physical, social and economic environment are necessary for children living in difficult circumstances.

"Investment in early childhood development has been shown to modify inequalities rooted in poverty and social discrimination by giving children from disadvantaged backgrounds a fair start in school and life. Effective early childhood development programmes can bring about cost savings in areas other than education. Health care costs can be cut through preventive measures found in programmes that help reduce disease and accidents. The social costs of delinquency, adolescent pregnancy and related problems are cut as children stay in school longer; and absenteeism from work is reduced when parents, assured of proper care of their children, can devote time to their jobs. The links between community development and early childhood development programmes through the empowerment and skills acquisition of parents and community members are well known. In early childhood, children are responsive to learning the values of mutual respect and tolerance essential for a democratic society and it is the best place to begin to develop a culture of learning" (Atmore, 1996:2).

Pre-school education

Educare facilities serve different functions in Gauteng province. "In reasonably well off suburbs pre-primary schools have a mainly educational function, broadening the social experience of children from nuclear families, and providing educational experiences which make the transition to primary school easier. In less affluent urban and peri-urban areas, educare facilities serve primarily as day-care centres for the children of working mothers, and vary considerably in the quality of the care from conscientious and high-quality care to the frankly exploitative.

"In rural areas the needs are different again. Day-care diminishes in importance where families are extended, but the creches provide a base for the distribution of food supplements, and for development experience for both children and adults. Through large rural educare networks such as those organised by TREE (Training and Resources in Early Education), children and their parents are introduced to educational ideas. Adult activities often include the generation of funds to support and extend the creche facilities, and these activities may lead into joint ventures for the acquisition of new skills such as literacy classes and basic bookkeeping" (Kvalsvig, 1995:57).

Survival rates, failure and dropout rates in the junior primary phases

"The educational implications of the context in which the black child develops are largely negative. Owing to inadequate nutrition and health care the child's physical condition is often poor, thus limiting energy and vitality. The child also lacks the experiences necessary for optimal cognitive development. Language development in turn is negatively affected. The result is a child who is not school ready and is therefore unable to keep up with the pace at school. This leads to school failure and early dropout" (Atmore, 1996:3).

While there are disturbing data illustrating the plight of African children in South Africa, the educational implications of this context are most explicitly manifested in the high failure and dropout rates for black primary school children and the number of children who leave school without gaining functional literacy.

A number of factors contribute to the high failure and dropout rates. Lategan (1990:3) states that "Some of these factors relate to conditions internal to the education system (such as access to schools, teacher:pupil ratios, teacher qualifications, etc.) and some to socio-economic conditions external to the education system (such as the education and income levels of their families)."

The provision of pre-school educare services before school entry, among other strategies, is advocated as a means of combating primary school dropout and failure.

Goals and objectives of pre-school educare

"The general goal of pre-school educare is defined as being 'to enrich the lives of individual children whose development would otherwise be adversely affected by detrimental socio-economic and cultural circumstances, and to show parents and communities how, besides giving love and devotion, they can best help their children to be successful in school and, ultimately, in their adult lives'. As an ideal,

community-based early childhood education programmes offer the hope that ignorance, poverty and disease can be reduced and the promise that even the most disadvantaged child can be helped to lead a fulfilling and worthwhile life. Thus, early childhood education, especially in developing countries, is much more than an end in itself. It is also a means for social development and improvement" (Atmore, 1996:4).

The objectives of pre-school educare lie in the growth and development of children in four main areas: the cognitive, social, emotional and physical.

A developmental approach to early childhood development services in South Africa

"Local and international evidence shows that individual children, families and society can benefit greatly from well-planned, integrated community services directed at the developmental needs of young children, especially those in greatest need. Through ECD programmes children are able to receive better nutrition, love and care, mental and social stimulation, moral guidance and constructive socialisation, both in and out of the home. Thus individual children's physical, mental, moral and social development and happiness can be enhanced, with significant benefits for both child and family. ECD services can enable parents to learn about and respond to their children's developmental needs, and/or can free parents, especially mothers, to take up work or further education. An adequate ECD infrastructure enables women in poor families to break out of the cycle of illiteracy, too many children and economic dependence" (Atmore, 1996:8).

These direct benefits to children and families bring many indirect gains to the community and the wider society, including healthier and safer neighbourhoods, increased economic activity and productivity, a reduced need for costly remedial health, education, welfare and police services, lower birth rates, less child abuse and more efficient progress through the school system.

As such, early childhood development programmes have an important role to play in community development and in improving the quality of life for young disadvantaged children and their families who are at risk.

"In the development approach the care, education and social development of young children is integrated with health, housing welfare, schooling, and economic development. Early childhood development is seen within the context of community development and recognises the important roles played by parents and community members in the care and education of young children. Advantages put forward are that the developmental approach favours continuity and sustainability in programmes, children's needs can be met in an integrated way, and whole communities benefit, not just children, through gaining knowledge and skills and the possibility of jobs. Women gain the opportunity to become involved in community affairs and to develop the organisational capacity to solve other community problems" (Atmore, 1996:8).

Access to early childhood development programmes

Overall access to ECD services is very limited with just over one in ten children having access to services of any kind. Such access as there is, is in inverse proportion

to need: white children have significantly greater access to services than black children, children in poverty-stricken rural areas have fewer ECD services than children in urban areas, children on farms being worst off; middle-class children benefit from more highly subsidized pre-primary education programmes while working-class children often attend full-day centres that do not have the funds to provide an adequate service. Educare programmes are focused on the 3-6 age group and there is a general neglect of the under threes who are in a particularly vulnerable period of life. Children with disabilities do not qualify for educare programmes.

Financing early childhood development

"The lack of financial resources in the field and an unwillingness by the previous government to take responsibility for ECD services are the major causes for the very limited overall access. Poor resource allocation to ECD services is evident in all sectors including government, corporate, social investment, foundations, development agencies and foreign aid, the result being provision for less than 11% of children. Where funding has been available it has been from the state, parents, the corporate sector, philanthropic organizations and foreign aid" (Atmore, 1996:17).

A policy on the funding of ECD services

"The public funding of a national ECD programme is justified on many grounds. It can help redress past discrimination against young children, protect the rights of children and women, promote human resource development, help prevent costly social pathologies, secure more efficient performance by children in school and improve the effectiveness and efficiency of the schooling system. Public funding for ECD must be mobilised from national, provincial and local government revenues" (Atmore, 1996:18).

However, public funding should not be the only source of financial support for ECD. Employers also have a distinct responsibility to contribute to meeting their employees' child care needs.

Parents have played a substantial role in the funding of ECD services through the payment of user fees and should continue to contribute according to their means.

A policy on the funding of ECD services will include

- recognition that the funding of ECD services involves a partnership of the national, provincial and local governments, the private sector, organised labour, community organisations, parents and donor agencies;
- an enabling legislative environment to encourage the maximum mobilisation of financial resources for ECD provision;
- investments in ECD within the framework of a co-ordinated strategy for reconstruction and development;
- the fostering of a funding culture that supports democratisation, transparency and responsible administration and accountability so as to enable the most efficient use of resources;
- adequate resourcing of an appropriate national ECD programme which will continue to present creative challenges to the authorities' capacity to mobilise adequate financial and personnel.

There will, therefore, be the need for the creative investigation of special measures and mechanisms to address the funding needs of ECD appropriately and to increase the existing pool of resources available for ECD programming (Atmore, 1996:18).

Guidelines for strategies

Pre-school and school-going children

- Children from birth to nine years of age have special needs, which will be met to foster their physical, mental, emotional, moral and social development.

- A national early childhood development strategy will be devised as part of an intersectoral programme in collaboration with other government departments, civil society and the private sector. A combination of public and private financing options will be harnessed. At national and provincial levels, interesectoral committees will be initiated to co-ordinate and implement such a strategy.

- The Department of Welfare will ensure that conditions are created for the optimum development of all children and their families through the rendering of appropriate early childhood development services. These services are preventative in nature and constitute a social investment in a healthy and able nation.

- Disadvantaged children under five years of age will be the primary target for early childhood development services as they are the least served at present and the most vulnerable group. The needs of children in the age group birth to three years old and of disabled children will also be addressed urgently.

- "No single model or programme is appropriate to meet the varied early childhood development needs of families, and a range of options will be made available, such as home and centre-based services; after-care for school-going children; stimulation programmes including part-day programmes; and family, education, health and nutrition programmes. Early childhood development facilities are particularly well placed to house supplementary feeding programmes, which are more effective when combined with nutritional education" (White Paper for Social Welfare).

- "Services and training programmes offered by existing role players - Government, local authorities, non-governmental organisations (NGOs), community-based organisations (CBOs) and parents - will be reinforced. Through community development interventions, early childhood development services will be initiated in underserviced areas" (White Paper for Social Welfare).

- Training will be developed for all those engaged in early childhood development service delivery and all care givers, parents and social service professionals. Use will be made of formal and non-formal training services, and all training will be integrated into the National Qualifications Framework for accreditation by the South African Qualifications Authority (SAQA).

- Early childhood development programmes will be registered, and appropriate national standards developed, which will be flexible and therefore applicable to a wide range of circumstances.

- After-school child development programmes for school-going children will be promoted.

Child development facilities in the Northern Province

The Northern Province comprises 31 districts from the former South Africa, 4 from Venda, 6 from Gazankulu, 11 from Lebowa and 10 from the former white Transvaal. A spatial overview of the Northern Province indicates that only the district of Phalaborwa is well off with regard to educare service provision. The other 30 districts severely lack such services and are in need of an improvement of their present situation.

According to the map and table, early childhood development services are extremely sparse in the following districts: Potgietersrus, Warmbad and Pietersburg of the former Transvaal; Giyani and Malamulele of Gazankulu, and Namakgale of Lebowa. These areas are thus high priority areas.

Phalaborwa is the best serviced area with 43,1% of pre-school children in educare or pre-primary school. This can be attributed to more than half the population being economically active; a low unemployment ratio; and a low dependency ratio of under 1%. The second best serviced area comprises the following four districts, Sekhukhuneland, Thabamoopo, Mokerong and Seshego, all of the former Lebowa province.

Malamulele is the worst serviced area with only 1,6 % of its pre-school children in structured care. Malamulele has a high, rurally dependent black population and suffers most from a lack of educare services because of neglect by the past government. A lack of resources and infrastructure have further curtailed satisfactory educare provision in Malamulele over the years. Like Malamulele, Namakgale (the second worst serviced district) was also severely disadvantaged by the discriminatory provision of ECD services by the previous government. Namakgale, a mining community with a large black labour force, has a high population density of 375 people per km². Warmbad, Potgietersrus and Pietersburg, all of the former Transvaal are also poorly serviced and Giyani, of the former Gazankulu province, is another district that demands high priority.

Phalaborwa, the only well off district in the Northern Province with regard to the provision of this service, will benefit in many ways because of its well-structured educare network. Such benefits will include continuous and sustainable programmes and an integrated approach to children's needs benefiting not only the children, but the entire community, through the gaining of knowledge and skills and the likelihood of employment. Furthermore, women can grasp the opportunity to become involved in community affairs and to develop the organisational capacity to solve other community problems.

On the other hand, the remaining 30 districts face a bleak future. Problems include unhygienic and unsafe neighbourhoods, decreased economic activity and productivity,

an increased need for costly remedial health, education, welfare and police services, higher birth rates, more frequent child abuse and less efficient progress through the school system.

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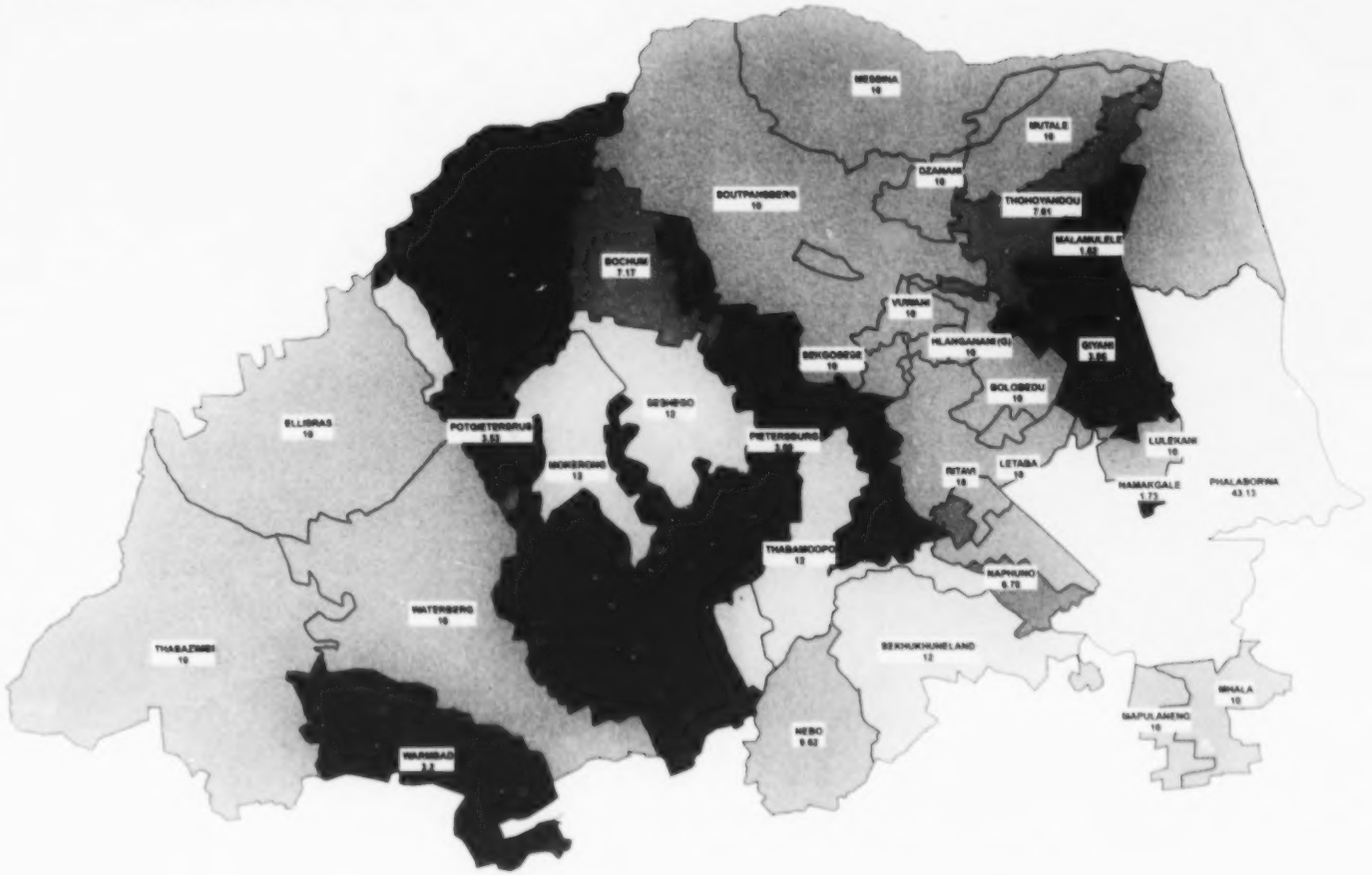
MAP 10 : PERCENTAGE CHILDREN YOUNGER THAN 6 YEARS IN EDUCARE OR PRE-PRIMARY SCHOOL

Source : National Educare Forum

HSRC
RGN
GIS UNIT



N

% children

	1,6 to 4,9
	4,9 to 7,2
	7,2 to 10,5
	10,5 to 12,8
	12,8 to 43,1

KM

100

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Table 10 Percentage children younger than 6 years in educare or pre-primary school

DISTRICT	EDUCARE CENTRES	CHILDREN (0-5) AT CENTRES	TOTAL AGED 0 - 5	% TOTAL CHILDREN AT CENTRES
Bochum	37	2 601	36 300	7,2
Bolobedu	regional average	regional average	45 300	10,0
Dzanani	regional average	regional average	24 900	10,0
Ellisras	regional average	regional average	1 700	10,0
Giyani	25	2 039	51 500	4,0
Hlanganani	regional average	regional average	28 900	10,0
Letaba	regional average	regional average	7 200	10,0
Lulekani	regional average	regional average	8 200	10,0
Malamulele	9	753	46 400	1,6
Mapulaneng	regional average	regional average	45 100	10,0
Messina	regional average	regional average	3 300	10,0
Mhala	regional average	regional average	60 800	10,0
Mokerong	regional average	regional average	99 600	12,0
Mutale	regional average	regional average	11 100	10,0
Namakgale	2	192	11 100	1,7
Naphuno	23	2 483	36 600	6,8
Nebo	68	6 548	68 100	9,6
Phalaborwa	52	1 380	3 200	43,1
Pietersburg	9	236	6 400	3,7
Potgietersrus	11	388	11 000	3,5
Ritavi	regional average	regional average	30 000	10,0
Sekgosese	regional average	regional average	28 700	10,0
Sekhukhuneland	130	regional average	82 100	12,0
Seshego	112	regional average	65 600	12,0
Soutpansberg	regional average	regional average	4 400	10,0
Thabamoopo	regional average	regional average	76 700	12,0
Thabazimbi	regional average	regional average	4 800	10,0
Thohoyandou	64	3 462	49 400	7,0
Vuwani	regional average	regional average	27 500	10,0
Warmbad	2	205	6 400	3,2
Waterberg	regional average	regional average	7 500	10,0

7.2 Health

Introduction

The sections dealing with problems and challenges, restructuring, policy framework, principles, and district health system are abridged from the Policy Document "Restructuring the National Health System for Universal Primary Health Care 1996".

"Health care delivery in South Africa faces a number of acute problems and challenges, many of which are related to the utilisation and distribution of financial and other resources. Approximately R30 billion was spent on health care in South Africa in 1992/93. This is equivalent to 8,5 % of gross domestic product (GDP), or one-twelfth of the economy. South Africa is thus devoting substantially more resources to the health sector than most developing countries, yet has poor health status relative to these countries" (Restructuring the National Health System for Universal Primary Health Care, 1996:1).

Problems and challenges confronting the public health sector

One of the most pressing problems facing public health services is the relatively heavy concentration of resources in the hospital sector, and consequent underresourcing of primary health care services. "Approximately 76% of total public sector health care expenditure was attributable to acute hospitals in 1992/93, with academic and other tertiary hospitals alone accounting for 44%. In contrast, 11% was spent on non-hospital primary care services. While certain hospitals provide quite substantial primary care services (e.g. deliveries and ambulatory care at community hospital outpatient departments), it is clear that a redistribution of resources between levels of care is required if the government is to significantly improve access to community-based primary care services for those who currently do not have such access" (Restructuring the National Health System for Universal Primary Health Care, 1996:2).

The effectiveness of public sector health services is also undermined by the historical geographic maldistribution of resources that are the legacy of the apartheid health care system. An explicit process of resource reallocation between the nine provinces has been implemented with effect from the 1995/96 financial year. "The stated goal is to achieve per capita equity in provincial health care allocations, with an allowance for provinces with academic complexes, within 5 years. While attention is usually focused on the distribution of resources between provinces, recent data has highlighted significant intraprovincial disparities in public sector resource allocation. These indicate that the public sector in the richest magisterial districts employs 4,5 times more general doctors, 2,4 times more registered nurses, and 6,1 times more health inspectors than in the poorest districts, and that average public expenditure per person on health services in the richest districts is 3,6 times more than in the poorest districts" (Restructuring the National Health System for Universal Primary Health Care, 1996:3).

The inequitable and inefficient distribution of public sector health care resources described here has contributed to inadequate public health sector performance over the last several decades. This is manifest in extremely poor health indicators, including high rates of avoidable morbidity, disability and mortality among the poor

and disadvantaged communities, particularly in rural or urban underserved areas. These problems will be significantly addressed through improvements in quality and accessibility of the public primary health care delivery system.

In summary, the public sector faces the challenge of attempting to improve access to basic primary care services for those who currently do not have access to such care. At the same time it is also trying to redress historical inequities in the distribution of health care resources between and within provinces. This must be achieved within the constraints of a limited budget that is currently derived mainly from general tax revenues (Restructuring the National Health System for Universal Primary Health Care 1996:3).

Problems and challenges confronting the private health sector

"Over the past decade, expenditure in the private sector, particular that by medical schemes, has increased more rapidly than the rate of inflation, with expenditure on medicines and private hospitals increasing rapidly during this period. The rise in expenditure on benefits is due to increases in both unit costs and utilisation levels. Several factors have driven these increases, including the fee-for-service reimbursement of providers, the fact that some doctors have a stake in the financial performance of hospitals through share ownership, as well as the fact that many health service providers (including hospitals and medical practitioners) benefit financially from selling medicines. Cost increases have also been driven by increases in the proportion of scheme members who are elderly. As expected, the level of contributions to medical schemes has also risen rapidly, since schemes must finance the benefit payments out of contributions" (Restructuring the National Health System for Universal Primary Health Care, 1996:3).

"Recent changes to the legislation governing medical schemes, (the Medical Schemes Amendment Act of 1993) have improved the capacity of schemes to manage their costs to some extent. However, previous changes to the legislation (specifically, the 1989 amendments to the Act), have created a situation in which the cross-subsidisation of elderly members by younger, healthier members is undermined, in that medical schemes are now permitted to charge high risk members higher contributions, based on their previous medical claims or on pre-existing conditions. Certain schemes are thus becoming increasingly unaffordable for the elderly and chronically ill who will rely more heavily on public sector health services" (Restructuring the National Health System for Universal Primary Health Care, 1996:4).

"The rapid cost spiral and fragmentation of risk pools within medical schemes is of concern to a number of health sector stakeholders. Medical scheme membership is becoming increasingly unaffordable for many South Africans, and especially those with low incomes, the elderly and those with chronic illnesses. In the absence of a substantial cost-containment effort, scheme membership may begin to decline significantly, and expansion of the medical scheme market to low income earners is unlikely to occur. This will have negative consequences for the public health sector, through increasing numbers of medical scheme members becoming dependent on public sector services for their health care. It is recognised that recent trends towards the emergence of managed care arrangements may go some way towards alleviating cost pressures in the private health insurance market. However, additional regulatory

measures are considered essential in order to address the full range of inefficiencies now pertaining in that market" (Restructuring the National Health System for Universal Primary Health Care 1996:4).

Need for restructuring of the national health system

The serious problems in both the public and private sectors, and in the interface between them, will become increasingly serious as the burden on the health services increases over time due to the rapidly expanding HIV/AIDS epidemic, and to the ageing of the population and other epidemiological shifts inherent in the epidemiological transition being experienced by the country.

Addressing these problems effectively will require a significant level of restructuring of both sectors and of their interactions. Some elements of this restructuring can be undertaken in the short term, while other elements will take at least five to ten years to implement. Particular priorities in this restructuring process include the following:

- Efforts to restrict the growth of health sector expenditure in South Africa, by focusing on the more efficient and effective use of existing resources.
- Improving of the access of South Africans to health services, as well as the quality of services, particularly at the primary care level and in geographic areas that are currently underresourced
- Promoting the redistribution of resources between levels of care within the public sector
- Achieving a redistribution of resources currently used only in the private sector to make them accessible to a broader section of the population
- Promoting cost-containment efforts within the private sector

(Restructuring the National Health System for Universal Primary Health Care, 1996).

Policy framework for the national health system

This policy document contains a set of policies that will involve a comprehensive restructuring of health care in South Africa aimed at the development of a comprehensive, efficient and equitable National Health System. More specifically the policies set out here aim to achieve

- substantial, visible and sustainable improvements to the accessibility, efficiency and effectiveness of publicly funded primary health care (PHC) service;
- improvements in the funding, efficiency and governance of the public hospital system, and
- improvements in the equity and efficiency of the private health sector, and in the interaction between the public and private health care systems (Restructuring the National Health System for Universal Primary Health Care 1996).

Principles of the PHC delivery system

- The National Health System should ensure universal access (the ease with which health services may be accessed geographically, financially and socially).
- The National Health System should build on and strengthen the existing public sector PHC and hospital system.
- The National Health System should be congruent with, and should strengthen the emerging district-based health care system.
- The National Health System should be based on a comprehensive primary health care approach, and should use population-based planning and delivery mechanisms.
- The PHC delivery system should be fully integrated with, and consistent with, other levels of the National Health System.
- The National Health System should optimise the public-private mix in health care provision, and should ensure the achievement of the redistribution of resources between the private and public sectors.
- The National Health System should preserve the choice of individuals to use private providers and to insure themselves for doing so.
- The National Health System should emphasise the needs and rights of users of the system, and should empower users and their communities to participate in governance of the health care system.
- The National Health System should be outcome driven, and should place substantial emphasis on quality of patient care, on health outcomes, and on the 'caring' aspects of health care services.
- The organisation and functioning of the National Health System should be based on the principle of decentralised management. It will aim to create the maximum possible management autonomy at health facility level within the framework of national public service guidelines (Restructuring the National Health System for Universal Primary Health Care, 1996).

The district health system

"The South African Government of National Unity, through its adoption of the Reconstruction and Development Programme (RDP) in 1994, committed itself to the development of a District Health System based on the Primary Health Care Approach as enunciated at Alma Ata in 1978. This approach is the philosophy behind which many health systems around the world have been reformed, and out of which has developed the concept of the District Health System. District-based health services are now applied successfully in many countries, and have been adapted to a wide variety of situations, from developing countries on our own continent, to more sophisticated systems such as that of Canada" (Restructuring the National Health System for Universal Primary Health Care, 1996).

A national health system based on this approach is as concerned with keeping people healthy as it is with caring for them when they become unwell. These concepts of "caring" and "wellness" are promoted most effectively and efficiently by creating small management units of the health system, adapted to cater for local needs. These units provide the framework for our district-based health system, so that a district health authority can take responsibility for the health of the population in its area (Restructuring the National Health System for Universal Primary Health Care, 1996).

Primary health care (PHC) services are at present provided in a fragmented and inefficient manner. Co-ordination between the public and private sectors is minimal, and within the public sector there has been a multitude of different (and overlapping) authorities responsible for health services. Salaries, and terms and conditions of service vary greatly between different local authorities, and between local authorities and the provincial and national administrations.

Restructuring district level health services will be a complex process, but failure to do so will perpetuate inefficiency and inequity. An integrated health system is built on the provision of health and health care services at the community level. Central to the PHC approach is full community participation in the planning, provision, control and monitoring of services.

Comprehensive PHC activities encompass all that is required to make a difference to people's lives: to make them healthy, and to advocate for the conditions that will keep them healthy. This is the "wellness" approach to health systems. It recognises that our health is determined by factors that go beyond the traditional definition of health and health care. There are social and other determinants such as housing, water, sanitation, education, employment, income, the environment, and individual lifestyle that all play major roles in determining our health. This means that a health service based on wellness should, *inter alia*,

- be structured so that appropriate emphasis is placed on prevention, health education and promotion, early intervention, and rehabilitation;
- be responsive to community needs by placing control and management responsibilities at a local level;
- eliminate inequities and establish intersectoral development links;
- integrate institutional, community-based and preventive programmes both within the health sector and with other sectors impacting on health;
- reduce waste and eliminate duplication at all levels (Restructuring the National Health System for Universal Primary Health Care, 1996).

The system must be structured so that no-one in need is prevented from accessing any of the levels of care that they may require, rapidly and efficiently, and so that all will receive the highest quality of care at all levels.

The district level is the level at which co-ordination of all district health services takes place, and is the unit of management of the health system that is best able to drive it. "The district must be large enough to be economically efficient, but small enough to ensure effective management which is accountable to local communities and is responsive to local needs through the participation of communities and of staff in the planning and management of services" (Restructuring the National Health System for Universal Primary Health Care, 1996).

7.2.1 Average population per hospital bed

Of all the provinces the Northern Province has one of the most difficult tasks in bringing together the administrative and management patchwork created during apartheid.

Formerly the Transvaal Provincial Administration was responsible for 10 of the 42 hospitals, curative care and limited preventive care institutions in its areas, whereas the Venda, Gazankulu and Lebowa administrations rendered all services in all areas under their jurisdiction. The Health Services of the Department of National Health and Population Development and the Transvaal Provincial Administration operated in Section 30 areas of the Health Act 72 of 1977, as well as administering vertical programmes such as family planning, environmental health, tuberculosis control, mental health and school health. Local authorities rendered a limited range of preventive services.

Health districts have not yet been consolidated as this requires the consensus of different government sectors. The new province is divided into six regions that coincide with the district council boundaries. These are the Lowveld, Bushveld, Western, Northern, Southern and Central regions.

The population per province varies, with the Lowveld having a large population and the Bushveld and Western regions having relatively small populations. It should be noted that regional boundaries reflect units of administration and management, rather than defined catchment areas for populations. In other words, health facilities adjacent to neighbouring regions may subserve their border populations.

The Reconstruction and Development Programme and national goals

The regional health departments established ahead of district health authorities now have managers concerned with the rapid implementation of new strategies and activities to achieve the goals already set out in national and provincial policies and plans. Increasing accessibility in rural areas, establishment of efficient referral systems, ensuring that higher proportions of pregnant women receive antenatal care and have skilled deliveries, and strengthening the EPI programmes are some of the new imperatives for regional managers. ReHMIS is a tool that can assist in planning to meet such goals. It can give an overall picture of the distribution and utilisation of resources - facilities, human resources, financial resources, and equipment.

Distribution of hospital beds

The map of beds per 1 000 shows that there is a higher level of service in the eastern parts. The Bushveld and Western health regions have the lowest level of provision at 2,5 and 2,1 beds per 1 000, respectively. The Lowveld and Central districts have 2,8 and 2,9 beds per 1 000, respectively. The highest level of bed per 1 000 of the province provision is in the Southern and Northern regions that have 3,8 and 3,6, respectively.

One of the measures of efficiency of hospitals is the bed occupancy rate, that is the proportion of beds occupied over a year. This is usually expressed as a percentage and the optimum level is considered to be 70 to 80%. Occupancy rates below 50%

indicate underutilisation and rates over 100% indicate overcrowding (Health Systems Trust, 1996b). The Bushveld and Western regions had the lowest number of beds per 1000, but are also the most underutilised with total bed occupancy rates of 41%. The highest total bed occupancy rate is 58% for the Northern region. This implies an over-provision throughout the province, but is only the case in some services. Community health centres have at most 39% occupancy and the lowest occupancy is 1% in the Lowveld. In contrast the mental health hospitals are overutilised and in the Northern region overcrowded with an occupancy of 118%. The services that come closest to being optimum are the community hospital in the Northern region and the secondary hospital in the Central region, which have 69% and 68% occupancy, respectively.

Current initiatives in the Northern Province

Management has taken cognisance of the situation that certain areas in the province need additional health care facilities to serve all the people. This problem is included in the capital works programme which supervises the process of upgrading or rebuilding existing clinics or the erection of new clinics where such needs had been identified for additional health care facilities. This is a continuous process (Muller, personal communications, 1996).

The Clinic Upgrade and Building Programme, funded by the RDP in phases 1, 2 and 3, involved 25,47 and 17 clinics, respectively. The provincial health department upgraded 82 clinics. Twenty-three clinics that were dilapidated were also taken care of by RDP funds. The upgraded clinics have palisade fencing and high mast lights. All newly built or upgraded facilities have been provided with water. Sanitation is taken care of as water is provided in each health facility (Mahlangu, personal communication, 1996).

Upgrade programmes were initiated during 1995/96. R5 million was awarded to referral hospitals, R5 million to regional hospitals and R250 000 to each health centre. These funds were utilised in line with the facility audit results to upgrade the worst conditions. Four hospitals were found not to be economically viable and are being replaced in the 1996/97 financial year with four new hospitals to alleviate a shortfall in the number of beds (Mahlangu, personal communication, 1996).

Consultants were asked to study and advise on the integration of the four former communication systems. All stakeholders agreed to the format of integration. Tenders awarded by the Departments of Public Works and of Health and Welfare being implemented. All hospitals, health centres, clinics and ambulances will have radio communication. The target date was December 1996 (Mahlangu, personal communication, 1996).

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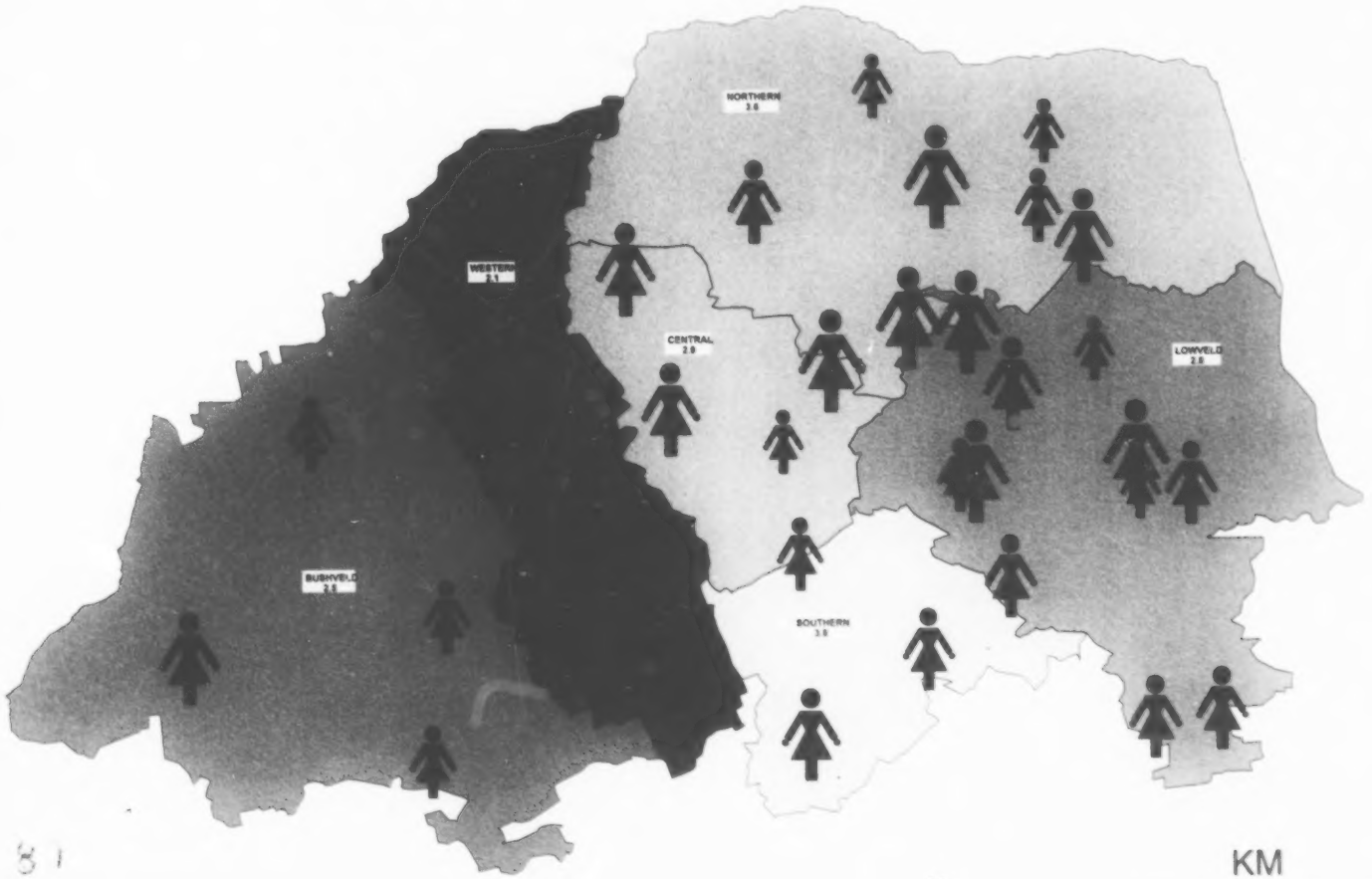
MAP 11 : DISTRIBUTION OF HOSPITAL BEDS

Source : REHMIS



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MAGISTERIAL DISTRICTS

Population per bed

50 to	248
248 to	366
366 to	604
604 to	966
966 to	149 812

HEALTH DISTRICTS

Beds per 1000

2,1 to	2,1
2,1 to	2,5
2,5 to	2,8
2,8 to	3,6
3,6 to	3,8

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Table 11 Distribution of hospital beds

DISTRICT	TOTAL POPULATION	TOTAL NO. OF BEDS	POPULATION / BED
Bochum	16 2032	214	757
Bolobedu	21 3455	328	651
Ellisras	2 6607	92	289
Giyani	24 0425	1 332	180
Letaba	5 9491	47	1 266
Malamulele	19 5099	248	787
Mapulaneng	23 2231	503	462
Messina	2 3084	112	206
Mhala	28 9825	519	558
Mokerong	48 9005	2 474	198
Mutale	6 0692	1 219	50
Namakgale	5 9854	241	248
Naphuno	18 8823	487	388
Nebo	35 3612	488	725
Phalaborwa	3 0218	53	570
Pietersburg	6 5263	589	111
Potgietersrus	6 7620	70	966
Ritavi	15 8437	556	285
Sekgosese	13 5666	36	3 769
Sekhukhuneland	42 6865	922	463
Seshego	32 1356	531	605
Soutpansberg	3 5050	58	604
Thabamoopo	38 5039	1 537	251
Thabazimbi	4 9035	60	817
Thohoyandou	26 8887	734	366
Warmbad	4 1891	145	289
Waterberg	4 9135	184	267

7.3 Housing

"The estimated housing backlog in South Africa is 1,5 million housing units. If the natural population growth is added to the backlog, a total of 3,5 million housing units will have to be provided over the next ten years" (White Paper, 1994:11).

Owing to the extent of unemployment in South Africa and the associated poverty, approximately 80% of those requiring housing earn less than R3 500 a month and therefore depend on government assistance to obtain a home of their own. Approximately 60% of those in need of housing earn less than R1 500 per month and are totally dependent on government assistance. (National Department of Housing, Website, 1996)

"Government's goal is to increase housing's share of the total state budget to 5%. It also intends to increase housing delivery substantially to 350 000 units a year to reach the Government of National Unity's target of 1 000 000 houses in five years" (Annual Report of the Department of Housing, 1995:6).

Housing and the RDP

Housing lies at the core of the Reconstruction and Development Programme (RDP), and South Africa's housing effort must serve as an engine of the economy and as a major spur to job creation.

The general value framework for housing in South Africa complements the RDP's principles and objectives. All the housing and related principles and objectives of the RDP have been incorporated into the White Paper on Housing, which addresses all policy issues regarding housing.

Primarily the RDP aims at redressing past imbalances and distortions. It addresses socio-economic backlogs at scale by providing basic services and infrastructure (including housing), providing employment and maximising employment creation in the process (Annual Report of the Department of Housing, 1995:6).

The White Paper

The housing White Paper has provided the basis for all the department's activities. It is the product of extensive consultation involving government at national and provincial level, non-governmental organisations, community representatives and the private sector.

The policy has seven major thrusts designed to turn South Africa's housing situation around:

- **Housing support for a people-driven process**
  "To help individuals and low-income families with housing, government at all levels, in conjunction with the private sector and civil society, is planning housing support mechanisms throughout the country. The White Paper clearly sets government assistance for the poor as a priority. The poor, however, cannot easily access this assistance entirely on their own. Intervention is necessary to establish a

range of financial, institutional, technical and logistical support mechanisms that will enable communities to continually improve their own housing circumstances. Such mechanisms can be organised in the form of housing centres (an identifiable place or base where beneficiary families could gain access to a serviced site and the relevant subsidy package). Where required, they could receive training in materials manufacture and basic construction skills, together with the necessary information and advice to enable them to contribute directly to the design and construction of their own houses or dwellings" (Annual Report of the Department of Housing, 1995:7).

- **Stabilisation of the housing environment**
  "Many communities were in disarray when democracy dawned in South Africa. A lack of functioning local authorities, since the activities of many had been disrupted by rent, bond, and service charge boycotts, meant that even the hitherto limited stream of private sector investment had dried up. The task now is to stabilise the residential environment. Conditions conducive to investment by the public and private sectors and by individuals in these areas must be created" (Annual Report of the Department of Housing, 1995:8).

- **Consolidation and unification of housing institutions**
  "A rationalised statutory, governmental and parastatal institutional framework within which the national housing strategy will be implemented is a priority of government. Fragmentation, overlapping, wastage and inefficiencies in the institutional housing set-up must be eliminated to establish an institutional basis from which a sound long-term strategy can be launched" (Annual Report of the Department of Housing, 1995:10).

- **Encouragement of savings for housing**
  "Individual savings for housing are recognised internationally as a major route towards mobilising housing resources. A positive savings record of more than nine months qualifies a borrower for a home loan. In 1995, a nine-month savings scheme was introduced for those people who cannot afford deposits for minimum housing loans" (Annual Report of the Department of Housing, 1995:10).

- **A subsidy scheme to provide housing opportunities for millions**
  The Housing Subsidy Scheme aims at mobilising credit and is one of the cornerstones of the government's approach to the housing challenge. Its goal is to assist households that cannot provide their own housing.

- **Mobilisation of credit at scale**
  "Virtually none of the nation's savings is currently being invested in low-income housing. Therefore, the majority of the population is practically excluded from access to housing finance. The National Housing Finance Corporation (NHFC) is to address this problem and its task entails removing impediments and reducing the funding costs to small and medium lenders; limiting and spreading the risk associated with lending to low-income borrowers and providing funds for small retail lenders; reducing interest costs to low-income borrowers; and addressing the regulatory, policy and socio-political constraints on sustained expansion of retail housing credit.

The NHFC will constitute a long-term intervention aimed at providing structural adjustment within the established financial sector to improve access to finance for those historically denied such access. It will also, however, promote the establishment and growth of innovative alternative retail finance capacity to service market segments in which the more established sector is not yet ready to engage" (Annual Report of the Department of Housing, 1995:13).

- **Making land available for housing**
  "The land delivery process is critical to housing. This includes the identification and allocation of undeveloped land and its transformation into serviced sites for residential development. The fragmented and extremely complex regulatory network within which land is delivered is often inadequate and in conflict with the aims and objectives of the housing strategy and the RDP. Short-term intervention to aid the speedy delivery of land is essential. As a result, the Development Facilitation Act was drafted and promulgated as a short-term measure. This Act makes it possible to lay down nationally uniform norms and standards for land development, offers national legislation in parallel to provincial laws as an alternative, and provides more appropriate mechanisms for transparent, rapid land delivery, an option for provincial administrations, local authorities and the private sector to adopt and utilise. This Act also provides for a Development and Planning Commission to advise the Minister on policy and laws relating to planning, development, land and infrastructure issues" (Annual Report of the Department of Housing, 1995:13).

Obstacles to the housing delivery process in 1995

"The housing sector is coming under fire increasingly for its apparent failure to deliver. Since the first democratic general elections in April 1994, there has been a noticeable slump in housing delivery and this hiatus is causing anxiety and concern. The ongoing policy debate appears to lack decisiveness. Meanwhile, the position among the homeless is deteriorating as people battle for a stake in the dwindling supply of housing opportunities and resources.

"Under the previous dispensation the State's housing functions were fragmented among 17 national and provincial authorities. Without a coherent national housing policy, housing activities were being conducted on an inconsistent and inequitable basis. In the former TBVC states and self-governing territories, authorities paid scant attention to the growing housing needs of their communities, while in the rest of the country the Own Affairs Administrations were extravagant in their allocation of housing subsidies for the benefit of a privileged few. The most the homeless population could hope for was access to a rudimentarily serviced building site without any support in constructing even basic shelter. Not surprising, therefore, was the size of the housing backlog inherited by the Government of National Unity.

"Government had two options in its approach to the housing problem. It could either follow past practice by entrenching direct State provision as the primary means of housing the poor - a route that has generally been discredited throughout the world, especially in developing countries - or it could, in line with current international wisdom, adopt an enabling approach which, although results were likely to fall far short of expectations in the short term, would nevertheless offer the best chance of longer-term sustainability. In view of the magnitude of the problem, and the serious

limitations on resources, Government was left with little choice but to embark on the onerous exercise of restructuring housing delivery by a process that would draw in all available capacity" (Annual Report of the Department of Housing, 1995:17).

"South Africa is fortunate in having a sophisticated construction industry and an advanced financial sector that have the capacity to meet the effective demand for housing products and services. Nevertheless, the market in which they operate is dysfunctional in that only 15% of households requiring housing are able to meet their needs in the market place without assistance. The remaining 85% depend on State support to a greater or lesser extent. To correct deficiencies in the market, a wide range of interventions to ease the logjam are necessary. These interventions refer to the seven major thrusts designed to improve South Africa's housing situation. Such interventions should be set up coherently and consistently within the framework of a national housing policy and strategy. The national Government's responsibility is therefore to establish a sustainable housing process through interventions that influence the housing market positively" (Annual Report of the Department of Housing, 1995:18).

7.3.1 Distribution of informal housing

Traditional and shack housing types both fall into the informal housing category. This is a somewhat unfortunate grouping of housing data as traditional housing could be viewed as having the same intrinsic value as shacks. A high percentage of informal housing in a rural district would probably reflect a high level of traditional housing. Conversely, an urban district with high levels of informal housing is more likely to have a high percentage of shacks.

According to the map the distribution of the range of percentages of informal housing units in general reflects the political boundaries of the old South Africa. The clusters of districts with low levels of informal housing stretch eastward from Pietersburg and are also found in the west and north-western portions of the province, including the Soutpansberg district. The districts with higher percentages of informal housing include most of the former black Lebowa, Venda and Gazankulu districts. The former black districts that are exceptions are Mokerong and Namakgale, both falling into the second lowest range. Messina with 51%, a former white district, has a higher level of informal housing than other former white districts.

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MAP 12 : PERCENTAGE INFORMAL HOUSING

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Source : NELF Database

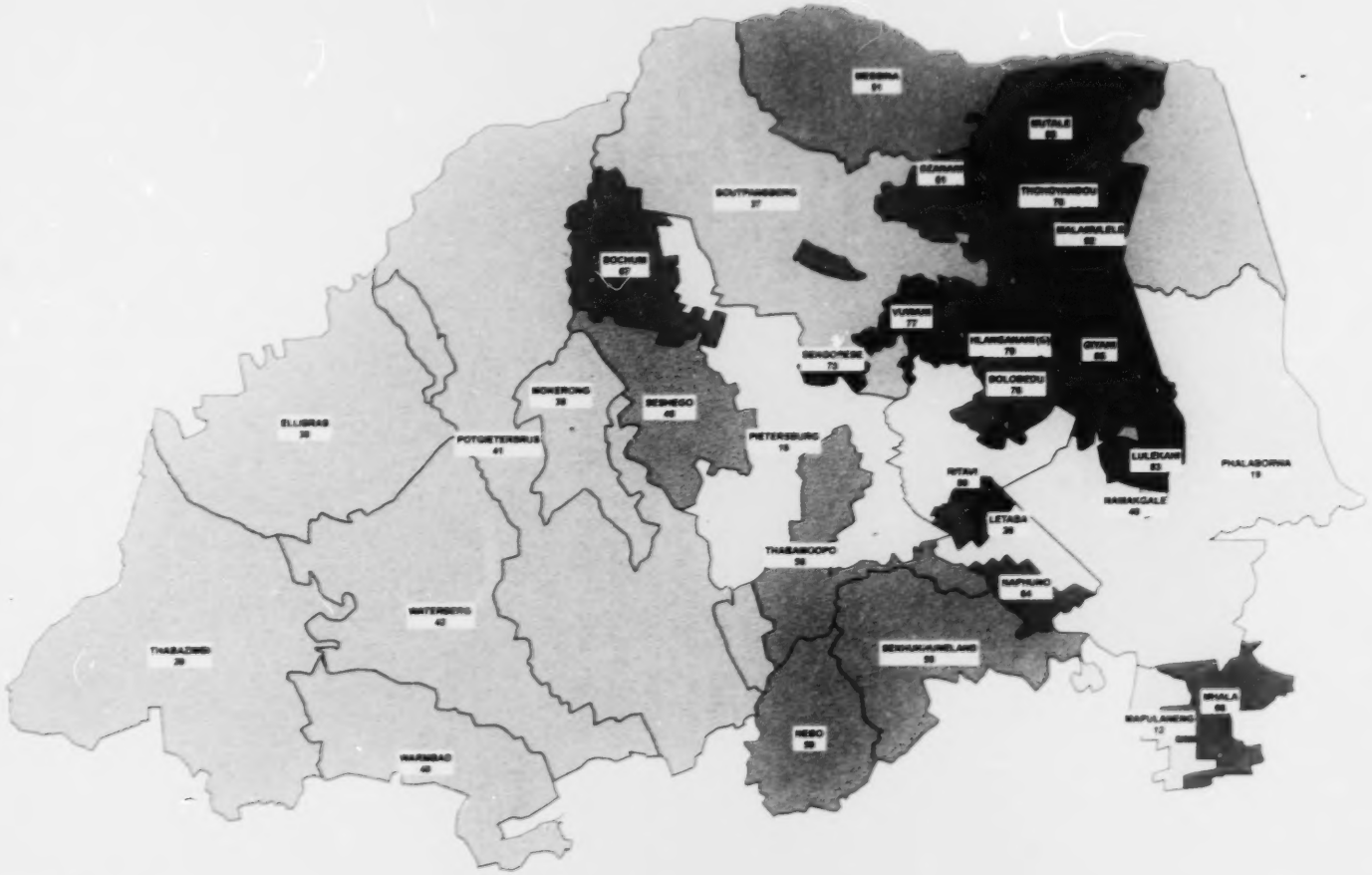

Table 12 Percentage informal housing

DISTRICTS	TOTAL HOUSES	TOTAL INFORMAL HOUSES	% INFORMAL HOUSES
Bochum	30 909	20 566	66,5
Bolobedu	43 207	32 984	76,3
Dzanani	24 603	14 932	60,7
Ellisras	6 162	1 853	30,1
Giyani	45 525	38 568	84,7
Hlanganani (G)	25 905	20 586	79,5
Letaba	15 151	4 012	26,5
Lulekani	12 644	10 538	83,3
Malamulele	37 145	34 004	91,5
Mapulaneng	48 258	5 826	12,1
Messina	5 823	2 955	50,7
Mhala	62 994	41 365	65,7
Mokerong	88 438	33 187	37,5
Mutale	10 748	9 436	87,8
Namakgale	12 502	5 062	40,5
Naphuno	37 717	24 223	64,2
Nebo	69 408	40 791	58,8
Phalaborwa	8 970	1 714	19,1
Pietersburg	17 539	2 738	15,6
Potgietersrus	16 546	6 809	41,2
Ritavi	33 910	27 189	80,2
Sekgosese	26 603	20 747	78,0
Sekhukhuneland	90 173	50 209	55,7
Seshego	62 387	27 776	44,5
Soutpansberg	9 315	3 419	36,7
Thabamoopo	77 575	43 282	55,8
Thabazimbi	9 725	2 802	28,8
Thohoyandou	49 911	38 007	76,1
Vuwani	27 043	20 720	76,6
Warmbad	9 119	3 649	40,0
Waterberg	10 066	4 215	41,9

7.3.2 Retirement facilities

Introduction

The current dispensation on ageing in South Africa does not take demographic realities into account. The white population is significantly older than the rest of the population. "Demographic projections indicate that over the next 20 years the proportion of elderly people in the population will increase. The annual increase of older persons will result in a total of 3,4 million aged persons by 2015. The estimated percentage of persons aged 80 years and over is increasing. Persons older than 80 years of age are particularly vulnerable, especially older women and the historically disadvantaged" (White Paper for Social Welfare, 1996:93).

Cost of care of the elderly

There is an unrealistic emphasis on institutional care for older persons in the white community. The average unit cost of between R11 000 and R22 000 per person per annum for institutional care indicates that the current dispensation is unaffordable. There is also an inappropriate emphasis on the government's responsibility for the care of the aged. There is limited information on services provided by informal service providers. "About 61% of the total national welfare budget is spent on social security and social welfare services for the elderly" (White Paper for Social Welfare, 1996:93). An in-depth evaluation of the present situation regarding ageing has been launched by the Department of Welfare together with all stakeholders.

Lack of retirement provision

"Economic conditions in South Africa are unfavourable, and few job opportunities exist. Large numbers of South Africans are unemployed, work in the informal sector or work in low-wage categories and consequently lack the means to save for their retirement. For those employed in the formal sector, preparation for retirement is inadequate or completely lacking. There are not enough incentives for financial provision for retirement and old age. It is as a result of these factors that elderly persons are vulnerable and are often in need of social support" (White Paper for Social Welfare, 1996:93).

Disparities and inappropriate services

"Racial, urban and rural disparities exist in service provision, particularly with respect to old age homes. Old age homes and service centres for the elderly are occupied and used largely by whites. There are backlogs in providing facilities and services for the elderly as well as affordable housing in developing and underdeveloped communities, with an oversupply and underutilisation of other facilities and services in some communities. There is an overemphasis on institutional care and informal care is not fully acknowledged in social programming" (White Paper for Social Welfare, 1996:94).

Social support systems for the care of black older persons have disintegrated in some communities owing to a number of factors such as violence and displacement. Recreational services for older persons are mostly geographically and financially inaccessible, and are also inadequate in disadvantaged communities. There is a lack of

appropriate and affordable accommodation for the elderly. Older people, especially those who are disadvantaged, women and persons over 80 years of age are generally nutritionally vulnerable (White Paper for Social Welfare, 1996).

Approach to ageing

"There needs to be a shift away from the notion of 'care of the aged' to 'ageing', which can be defined as a holistic and positive approach that recognises ageing as a natural phase of life without denying the special needs of older persons. The basic principle underlying ageing is to enable older persons to live active, healthy and independent lives for as long as possible. The family is the core of the support systems for the elderly" (White Paper for Social Welfare, 1996:94).

Community-based services

Community-based services with the family as the core support system should be the foundation of a new dispensation on ageing. A good balance should be struck between individual, family, community and government responsibility for older persons. Social systems to provide the elderly with essential social services should be developed (White Paper for Social Welfare, 1996).

Ethics and perceptions

A generally acceptable ethical viewpoint that addresses the needs and rights of the aged is a prerequisite for a just and responsible policy. A social commitment to a holistic approach to addressing the needs of the elderly is required.

"Different and changing perceptions of old age and the social status of older persons will affect society's understanding of their welfare needs. There needs to be a good balance between an emphasis on duration of life and quality of life" (White Paper for Social Welfare, 1996:95)

National strategy

A national ageing strategy is being developed by the Department of Welfare together with all stakeholders. The following principles, guidelines and recommendations support the proposed transformation approach above (White Paper for Social Welfare, 1996):

- Every individual has the personal responsibility to provide for his or her retirement and old age.
- All organisations in civil society have the social responsibility to provide and care for their older members who are in need.
- Government has the responsibility to provide for the needs of disadvantaged, destitute and frail older persons who require 24-hour care and who do not have the financial resources to meet their own needs.
- Homes for older persons should provide only for the frail elderly. Provision of frail care should be limited to a maximum of 2% of the number of persons over 65 years.
- All old age homes have a responsibility to provide essential outreach services in

the community. Creative options are needed to accommodate elderly persons who are destitute or homeless.

- Appropriate, adaptable and affordable housing for older persons and their families is the cornerstone of any new dispensation. The Department of Welfare will co-operate with the Department of Housing to develop a strategy to address this need as a matter of priority.
- The Department of Welfare and welfare organisations will advocate increased access of the elderly to affordable primary health care and other basic social services, particularly in rural areas. The welfare sector will also co-operate with the Department of Health to facilitate access to nutritional programmes. These services and programmes are critical to ensuring that older persons remain in the community for as long as possible.
- All social policies and programmes will demonstrate a commitment to and promote the concept of integrating the aged into society. That is, a society in which ageing is a natural part of the life cycle.
- Social services to older persons in need will be community-based. Family care will be the baseline of age management programmes. Home care of elderly people will be encouraged. Capacity building programmes will be provided to promote home care, including support programmes for care givers. Options such as day care, short-stay centres and outreach programmes will be explored.
- A plan of action with stakeholders to eliminate all forms of racial discrimination in government-funded services will be implemented immediately. Any planning concerning equity of services will be deeply sensitive to people's diverse values and traditions.
- The protection of the rights of older persons requires special attention given the prevalence of age discrimination, abuse and exploitation, particularly concerning social grants.

Strategy for social security for elderly people

- The government will advocate that all people in formal employment belong to a compulsory retirement scheme. Public education programmes will be provided to promote retirement planning.
- The government will also negotiate with other relevant stakeholders to ensure that retirement contributions are fully transferable when changing employment.
- Social assistance programmes will continue to be provided to support elderly people who qualify for such benefits.
- The development of a savings scheme will be explored to encourage individuals to take responsibility for their own retirement as well as to alleviate the pressure on the social grants system (White Paper for Social Welfare, 1996)

Grants for elderly persons

"Grants for elderly persons comprise a large proportion of overall social assistance. The number of elderly South African beneficiaries has stabilised, with fairly good coverage (80%), but there are still particular pockets where many eligible people do not get a grant. The impact of a grant income on household income for people in poverty is dramatic. The majority of people in poverty who are not white live in three-generation households, and the grant is typically turned over for general family use. In 1993, there were 7,7 million people in households that received a state grant. For

black South Africans, each pensioner's income helped five other people in the household" (White Paper for Social Welfare, 1996:58).

Retirement dwellings in the Northern Province

According to the Central Statistical Services data the Northern Province has an older person (65 +) population of 195 792 of whom 184 758 (94,4%) are blacks. As far as available services are concerned, the following situation exists: there are only two homes serving 504 black elderly (0,03%), while in white communities, seven homes exist, serving 531 white elderly (5%). The buildings of the two homes mentioned for the black elderly are dilapidated and care for the frail and bedridden elderly is poor owing to lack of facilities. The seven homes visited for the white elderly are well equipped and most are subsidised by the government. Homes for the elderly are concentrated in semi-urban areas like Pietersburg, Louis Trichardt and Potgietersrus. Families care for their own frail old people.

Community services

The records of the South African Council for the Aged show that 26 luncheon clubs serving 2 100 (1,1%) black elderly exist. Eight service centres serving 2 000 (19%) white elderly exist. Community services for the black elderly came into being after the Council for the Aged had conducted a needs assessment, and arose from the following needs: physical, social, economic, educational, and health needs. As such, luncheon clubs were identified as a less expensive service that could meet some of the needs, though not all. The luncheon clubs belong to the people and are self-operated. The elderly contribute to the continuation of these clubs, while business people are always willing to help. In a luncheon club the elderly meet twice or thrice weekly; they engage in self-help projects; cook a balanced diet; community health nurses visit them and give them health talks; and priests give sermons to meet their spiritual need. Most of these elderly meet in churches, schools or under the trees, as they have no structures of their own where they can meet. These luncheon clubs are not subsidised by the government, and yet are as effective as other subsidised service centres, thus illustrated the unequal distribution in funding for services of the elderly. Unfortunately these luncheon clubs in black communities are unable to reach every elderly person owing to the vastness of the province.

The most affected or underprivileged places are in region 6 (Sekutupu Old Aged Home at Groothoek and Boputswa Old Aged Home at Marble Hall), part of region 3 (Martha Hoffmeyer Old Aged Home and Old Aged Foundation at Pietersburg), region 2 (Piet Potgieter Monument Tehuis vir Bejaardes at Potgietersrus), region 1 (Lewensvreug Tuiste vir Bejaardes at Naboomspruit) and region 5 (informal CBO's at Giyane). Nearly all the regions have been underserviced, especially the rural areas. Only one organisation, namely the Giyani Society of the Aged, has managed to establish a structure and to receive a subsidy from the government.

The council believes that there should be an equal distribution in service delivery for all the elderly irrespective of colour, race, etc. The elderly themselves could be accountable for the distribution with the support of the communities, professionals, and other stakeholders interested in the welfare of the elderly. A comprehensive study of the present situation in the province would provide much-needed information. It seems, however, that to meet the basic needs of the elderly, the province should adopt

a multidisciplinary approach and co-ordinate its services to avoid overlapping. Presently organisations compete for survival while rendering the same service in the same communities.

There is also a great need for day care centres for the elderly in different communities as well as for lending depots to be opened, so that families of the immobile elderly could hire equipment like wheelchairs or pulpit walkers for those who have had a stroke, mobile commodes for those who cannot walk, waterproof underwear, etc. These services could help many families to care for their elderly.

There is a need to train care workers (volunteers who could substitute for family members while the latter are at work), in caring for the elderly. This training is valuable as it teaches volunteers skills in caring for the elderly for which trained workers receive a certificate. There is a great need for this service as it is the myth that the black elderly are cared for by extended families. Day care centres could help both the mobile and immobile elderly. Families who do not have care givers could take the elderly to the centre in the morning and collect them when they come back from work. This centre could serve as a crèche as well and help many communities to keep their elderly useful for as long as possible. The mobile elderly could pursue their own activities during the day without any disturbance and the centres could alleviate the problem of lack of equipment for the families of the frail and bedridden.

Most communities are concerned about the inadequate supporting infrastructure. There are no facilities and no retirement dwellings in the Northern Province. Any structures which do exist do not receive financial support from the government. For example, luncheon clubs in the Gauteng province are subsidised by the government, but not in the Northern Province. This subsidy depends on the number of elderly and the days attended. Furthermore there is no old age homes in category I, II and III in the Northern Province in other provinces such homes have been built for the blacks and are subsidised (e.g. Soweto old age home, Lehlabile old age home in Brits). Some of the rooms in these homes even cater for couples. Boputswa (in the Northern Province) which is called an old age home does not meet the criteria for an old age home because psychiatric patients are also admitted. Most elderly want retirement dwellings that cater for couples. They want retirement dwellings to make provision for visits from their grandchildren, that is they would like a day care centre to be included, because many elderly do not want to be away from their relatives. Such a centre would then have to accommodate families.

Recommendations

In taking the above into consideration, the following recommendations are made:

The elderly should receive immediate attention from the government (local, provincial, and national) and there should be partial or full subsidies for the following:

- Caregivers in home care projects
- Housing schemes for the elderly
- Provision of day care centres or multipurpose centres in different communities
- Support to keep the elderly in their homes within the community for as long as possible

- Regional hospice centres for the destitute and terminally ill elderly, preferably run by religious bodies and subsidised by the government.

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The South African Council for the Aged

MAP 13 : PERCENTAGE POPULATION AGED 65 YEARS OR OLDER IN RETIREMENT DWELLINGS

Source : CSS

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RGN
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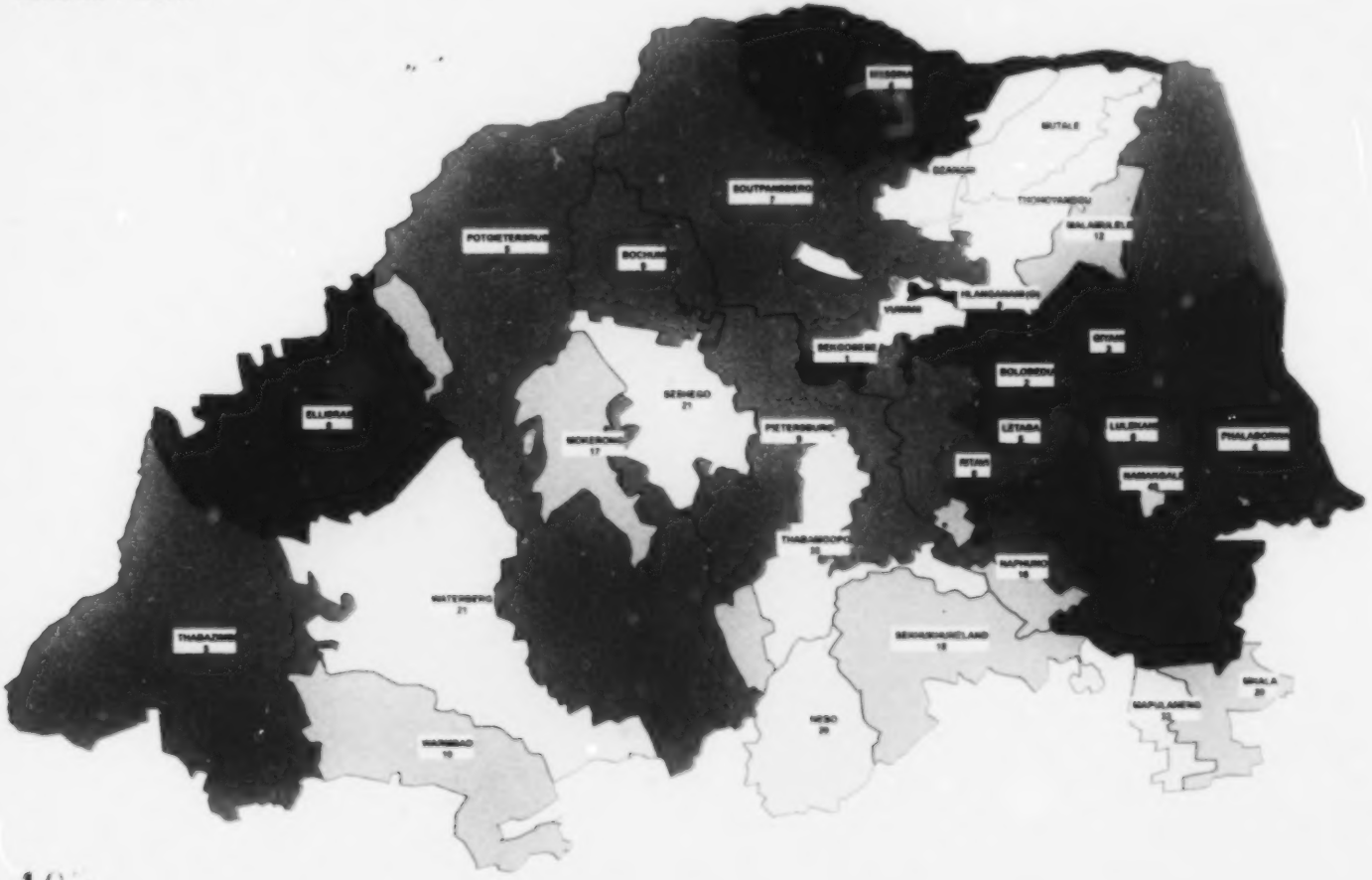

Table 13 Percentage population aged 65 years or older in retirement dwellings

DISTRICT	INSTITUTIONAL POPULATION	TOTAL AGED 65 - 99	% OCCUPANCY
Bochum	597	6 367	9
Bolobedu	118	7 010	2
Dzanani	no data	6 725	no data
Ellisras	0	589	0
Giyani	181	5 799	3
Hlanganani	20	4 853	0
Letaba	99	1 840	5
Lulekani	27	421	6
Malamulele	718	5 808	12
Mapulaneng	2 133	6 408	33
Messina	31	742	4
Mhala	1 413	6 931	20
Mokerong	3 273	19 355	17
Mutale	no data	3 262	no data
Namakgale	304	699	43
Naphuno	906	5 823	16
Nebo	3 821	13 347	29
Phalaborwa	36	887	4
Pietersburg	267	3 018	9
Potgietersrus	192	3 571	5
Ritavi	20	4 709	0
Sekgosese	39	5 405	1
Sekhukhuneland	2 408	13 163	18
Seshego	2 799	13 493	21
Soutpansberg	124	1 817	7
Thabamoopo	4 476	13 443	33
Thabazimbi	52	956	5
Thohoyandou	no data	11 323	no data
Vuwani	no data	7 545	no data
Warmbad	214	2 199	10
Waterberg	503	2 453	21

7.4 Water and sanitation

The sections covering the national water and sanitation goal, the basic service provision policy, reconstruction and development, the water supply and sanitation policy, water supply, the sanitation problem and its impact and looking ahead were abridged from the Water Supply and Sanitation Policy White Paper of November 1994 and The Draft National Sanitation Policy of June 1996.

National water and sanitation goal

The goal of the government is to ensure that all South Africans have access to essential basic water supply and sanitation services. This must be available at a cost that is affordable both to the household and to the country as a whole.

Basic service provision policy

"The policy of the Department of Water Affairs and Forestry, in full support of the objectives and targets of the Government's Reconstruction and Development Programme, is to ensure that all South Africans can have access to basic water supply and sanitation services within seven years or less" (White Paper, 1994:15). The following section of the White Paper provides basic guidelines for the provision of services and for capacity building and training.

"The setting of guidelines and standards must be approached with caution. Guidelines are intended to assist decision-making whilst standards are enforceable absolute limits. The rigid application of guidelines or inappropriate standards can have the opposite effect to that intended. An example would be the closure of 'sub-standard' water supplies which forces communities to revert to sources of even worse quality".

"Given that they are chosen to be the minimum needs to ensure health, the levels of service presented below should be seen as minimum standards to be applied in publicly funded schemes unless a relaxation has been specifically approved. This does not mean that higher standards cannot be applied. However, there is a direct correlation between the standard of service and the cost, both in terms of initial capital and operation and maintenance. Where higher standards of service are to be provided, the costs will not normally be supported by the programmes of the Department" (White Paper, 1994:15).

Reconstruction and development

"The Reconstruction and Development Programme (RDP) adopted by the Government of National Unity is more than a list of the services required to improve the quality of life of the majority of South Africans. It is not just a call for South Africans to unite to build a country free of poverty and misery. It is a programme designed to achieve this objective in an integrated and principled manner" (White Paper 1994:1). The RDP principle of an integrated and sustainable programme has already been identified as critical to the success of service provision. It is of little value to have a water supply and sanitation strategy that is not part of a comprehensive development strategy.

"The need for development to be a people driven process is fundamental. There is wide international experience that confirms the view that the provision of services in poor communities will fail if the people themselves are not directly involved. The involvement and empowerment of people is thus a cornerstone of the approaches proposed. One reflection of this must be the democratisation of the institutions at all levels of the sector since they are often among the first points of contact between communities and the organised State".

"Since water in particular can easily become a focus of conflict within and between communities, the development of effective delivery mechanisms must contribute to the RDP principle of achieving peace and security for all. Related to this, the very establishment of the goal of assuring that all South Africans have access to the basic services needed to ensure their health is a contribution to the process of nation-building" (White Paper, 1994:6).

Finally, the link between reconstruction and development remains a guiding concept. The RDP identifies the provisión of infrastructure for services such as water supply and sanitation as one of the key elements of its strategy for developing the South African economy along its new path. The way in which services are provided must ensure that they do not simply satisfy people's basic needs but also contribute to the growth of a dynamic economy, which is increasingly able to provide all South Africans with opportunities for a better life.

Water supply and sanitation policy

Policy principles

Local and international experience and the premises of the Reconstruction and Development Programme have led to the adoption of the following principles as the basis for the policy that follows. These principles assume a context of universal human rights and the equality of all persons regardless of race, gender, creed or culture.

- **Development should be demand driven and community based**
  Decision making and control will be devolved as far as possible to accountable local structures. There is a reciprocal obligation on communities to accept responsibility for their own development and governance, with the assistance of the state.
- **Basic services are a human right**
  This refers to a right to a level of services adequate to provide a healthy environment. It does not imply the right of an individual person or community to demand services at the expense of others.
- **"Some for All", rather than "All for Some"**
  To give expression to the constitutional requirements, priority in planning and allocation of public funds will be given to those who are presently inadequately served.
- **Equitable regional allocation of development resources**
  The limited national resources available to support the provision of basic services should be equitably distributed among regions, taking account of population and level of development.

- **Water has economic value**
  The way in which water and sanitation services are provided must reflect the growing scarcity of good quality water in South Africa in a manner consistant with their value and which does not undermine long-term sustainability and economic growth.
- **The user pays**
  This is a central principle to ensure sustainable and equitable development, as well as efficient and effective management.
- **Integrated development**
  Water and sanitation development are not possible in isolation from development in other sectors. Co-ordination is necessary with all tiers of government and other involved parties. Maximum direct and indirect benefit must be derived from development in, for instance, education and training, job creation and the promotion of local democracy.
- **Environmental integrity**
  It is necessary to ensure that the environment is considered and protected in all development activities. Appropriate protection of the environment must be applied, including if necessary even prosecution under the law. Sanitation services that have unacceptable impacts on the environment cannot be considered to be adequate.
- **Sanitation is about health**
  Sanitation is far more than the construction of toilets, it is a process of improvements that must be accompanied by promotional activities as well as health and hygiene education. The aim is to encourage and assist people to improve their health and quality of life.
- **Sanitation is a community responsibility**
  Improvements in health through improved sanitation are most likely to be achieved when the majority of households in a community are involved. Sanitation is therefore a community responsibility, and this must be emphasised through sanitation awareness programmes (National Sanitation Policy, 1996:4).

Water supply

South Africa has a substantial economy with a well-developed infrastructure. However, significant inequalities exist in both distribution and access to the infrastructure. This is particularly applicable to domestic water, one of the fundamental needs.

History has shown that clean water is the single most important factor in sustainable primary health, and consequently productivity and growth of the country. It is obvious that water resources have a strategic interdependence that surpasses local interests if the country as a whole is to function effectively.

Many changes have taken place in South Africa since the national elections of April 1994. One of the most profound changes to impact on the future role of the Department of Water Affairs and Forestry (DWAF) was the incorporation of the former homelands into the nine national provinces. This has had the effect of a more equitable resource disposition and a desire to redirect resources to the poorer communities. It has at the same time exposed deficiencies in administration. To correct this basic imbalance a major community water and sanitation supply

programme is required. The DWAF has taken up this challenge and has assumed a new role in the provision of community water supply and sanitation (CWSS).

Basic water supply is defined as:

- Quantity: 25 litres per person per day.
- Distance: the maximum distance that a person should have to cart water to his dwelling is 200m.
- Quality: the quality of water provided as a basic service should be in accordance with currently accepted minimum standards with respect to health-related chemical and microbial contaminants. It should also be acceptable to consumers in terms of its potability (taste, odour and appearance).
- Flow: the flow rate of water should not be less than 10 litres a minute.
- Reliability: water availability should not fail due to drought more than one year in fifty, on average (White Paper, 1994).

The sanitation problem and its impact

Approximately 21 million South Africans do not have access to adequate sanitation facilities. Those who have inadequate sanitation may be using the bucket system, unimproved pit toilets or the veld. Furthermore, there is a disturbing increase in poorly designed or operated waterborne sewerage systems. When these fail, the impact on the health of the community and others downstream, and the pollution of the environment, are extremely serious.

Inadequate excreta disposal facilities, combined with unhygienic practices, represent South Africa's sanitation problem. Often the unhygienic practices are related to

- a lack of access to health and hygiene education,
- inadequate water supplies,
- poor facilities for the safe disposal of water and other domestic waste,
- inadequate toilet facilities (National Sanitation Policy, 1996).

The effects of the sanitation problem are threefold:

- **Health impact** - the impact of inadequate sanitation on the health of the poor is significant in terms of the quality of life, and the education and development potential of communities.
- **Economic impact** - poor health keeps families in a cycle of poverty and lost income. The national cost of lost productivity, reduced educational potential and curative health care is substantial.
- **Environmental effects** - inadequate sanitation leads to dispersed pollution of water sources. This in turn increases the cost of downstream water treatment, as well as the risk of disease for communities who use untreated water (National Sanitation Policy, 1996)

Implementation approach

"The absence of a coherent national programme to improve community sanitation has left an obvious legacy. Nearly half of South Africa's population does not have, within

their own homes, the healthy environment promised to them by the Constitution. There is a glaring need for a structured programme to address this problem.

"Given the limited practical experience in the field and the evolving institutional arrangements at local level, such a programme must be flexible enough to develop and change over time. It must build on the lessons of experience and reinforce the role of local government as the implementers of service provision.

"It is therefore proposed that there be an initial two-year start-up phase. During this period, there should be an increase in funding to sanitation to start a limited number of projects in all of the Provinces. Existing pilot projects and research will continue, as will the development of the health and hygiene and capacity building 'software'. The consultation process must also continue" (National Sanitation Policy, 1996:28).

Experience gained from these activities will then be used to design and launch a full-scale national programme that can meet the ambitious goals set for the sector of meeting the basic needs of all South Africans within ten years.

7.4.1 Access to sanitation facilities

Access to waterborne sewerage and septic tanks

For waterborne sewerage and septic tanks to be provided there must be running water available in the house. This does not mean that running water and waterborne sewerage or septic tanks will necessarily be provided simultaneously. According to the map the lower two ranges (2 to 28%) of districts in the Northern Province having access to waterborne sewerage and septic tanks are the former black districts. Pietersburg (69%) has the highest provision, followed by Ellisras and Phalaborwa.

Access to bucket and pit latrines

There is a relatively high provision of bucket and pit latrines in all the districts prioritised according to limited access to waterborne or septic tank sewerage systems. These cannot be upgraded as they are considered inadequate and will be phased out and replaced with adequate systems. At least a VIP latrine will be supplied.

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GIS Unit
Human Sciences Research Council

MAP 14 : PERCENTAGE HOUSEHOLDS WITH ACCESS TO BUCKET AND PIT LATRINE FACILITIES

Source : NELF Database

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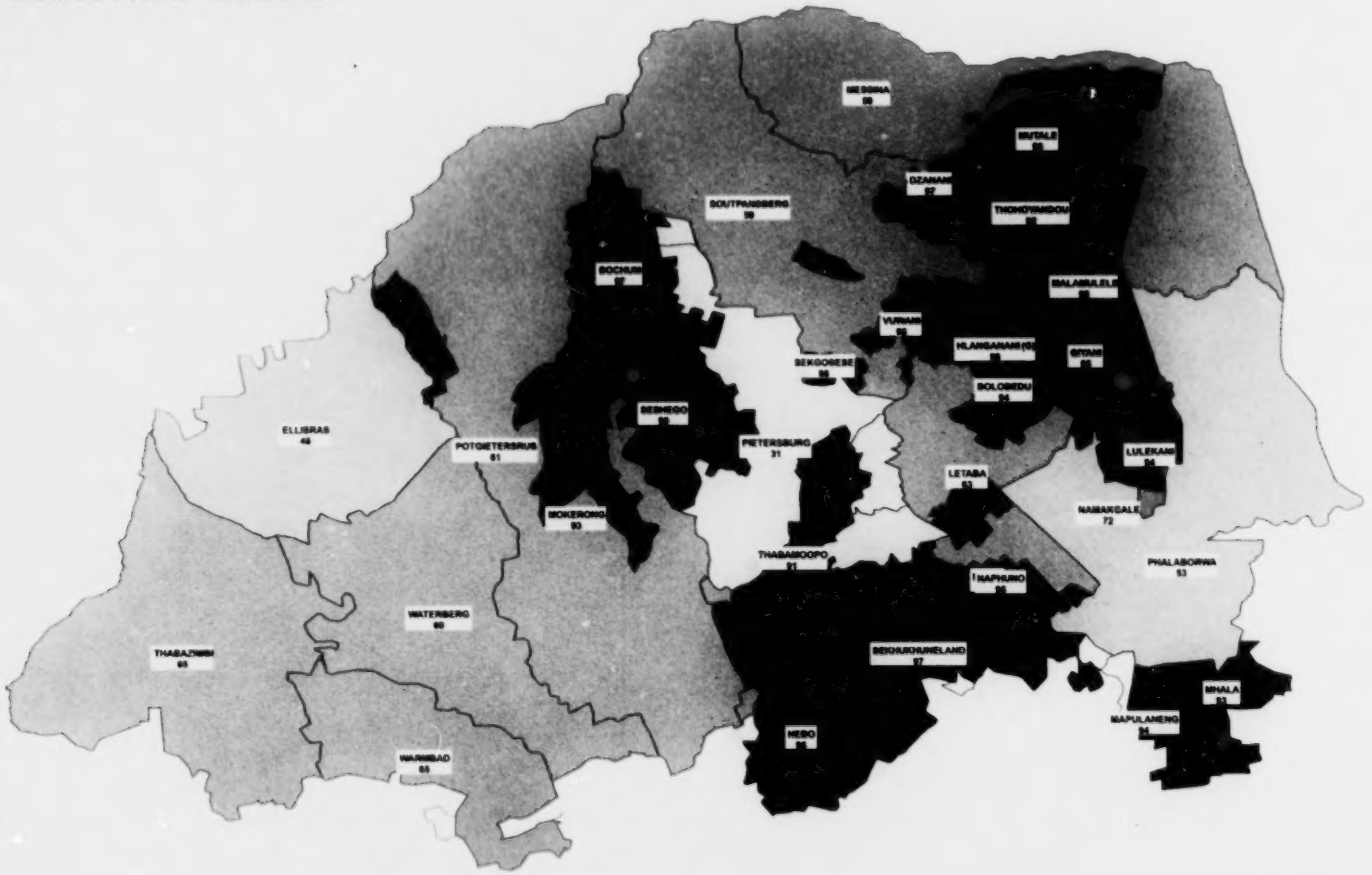

N

% bucket and pit

31 to 44	
44 to 58	
58 to 71	
71 to 85	
85 to 98	

KM

100

Table 14 Percentage households with access to bucket and pit latrine facilities

DISTRICT	TOTAL HOUSEHOLDS	HOUSEHOLDS WITH BUCKET SEWERAGE	HOUSEHOLDS WITH PIT LATRINES	% HOUSEHOLDS WITH BUCKET AND PIT LATRINES
Bochum	30 909	0	29 964	97
Bolobedu	43 207	317	40 248	94
Dzanani	24 603	8	23 812	97
Ellisras	6 162	28	2 819	46
Giyani	45 525	327	42 711	95
Hlanganani (G)	25 905	38	24 947	96
Letaba	15 151	29	9 502	63
Lulekani	12 644	108	11 788	94
Malamulele	37 145	61	36 235	98
Mapulaneng	48 258	152	45 023	94
Messina	5 823	53	3 408	59
Mhala	62 994	361	58 041	93
Mokerong	88 438	253	82 373	93
Mutale	10 748	3	10 346	96
Namakgale	12 502	626	8 434	72
Naphuno	37 717	164	35 754	95
Nebo	69 408	270	66 134	96
Phalaborwa	8 970	117	4 612	53
Pietersburg	17 539	689	4 736	31
Potgietersrus	16 546	128	9 898	61
Ritavi	33 910	274	31 604	94
Sekgosese	26 603	26	25 972	98
Sekhukhuneland	90 173	209	86 962	97
Seshego	62 387	983	55 012	90
Soutpansberg	9 315	43	5 457	59
Thabamoopo	77 575	630	70 247	91
Thabazimbi	9 725	114	6 162	65
Thohoyandou	49 911	267	45 723	92
Vuwani	27 043	71	25 997	96
Warmbad	9 119	156	5 733	65
Waterberg	10 066	88	5 977	60

MAP 15 PERCENTAGE HOUSEHOLDS WITH ACCESS TO SEPTIC TANK OR WATERBORNE LATRINE FACILITIES

Source : NELF Database

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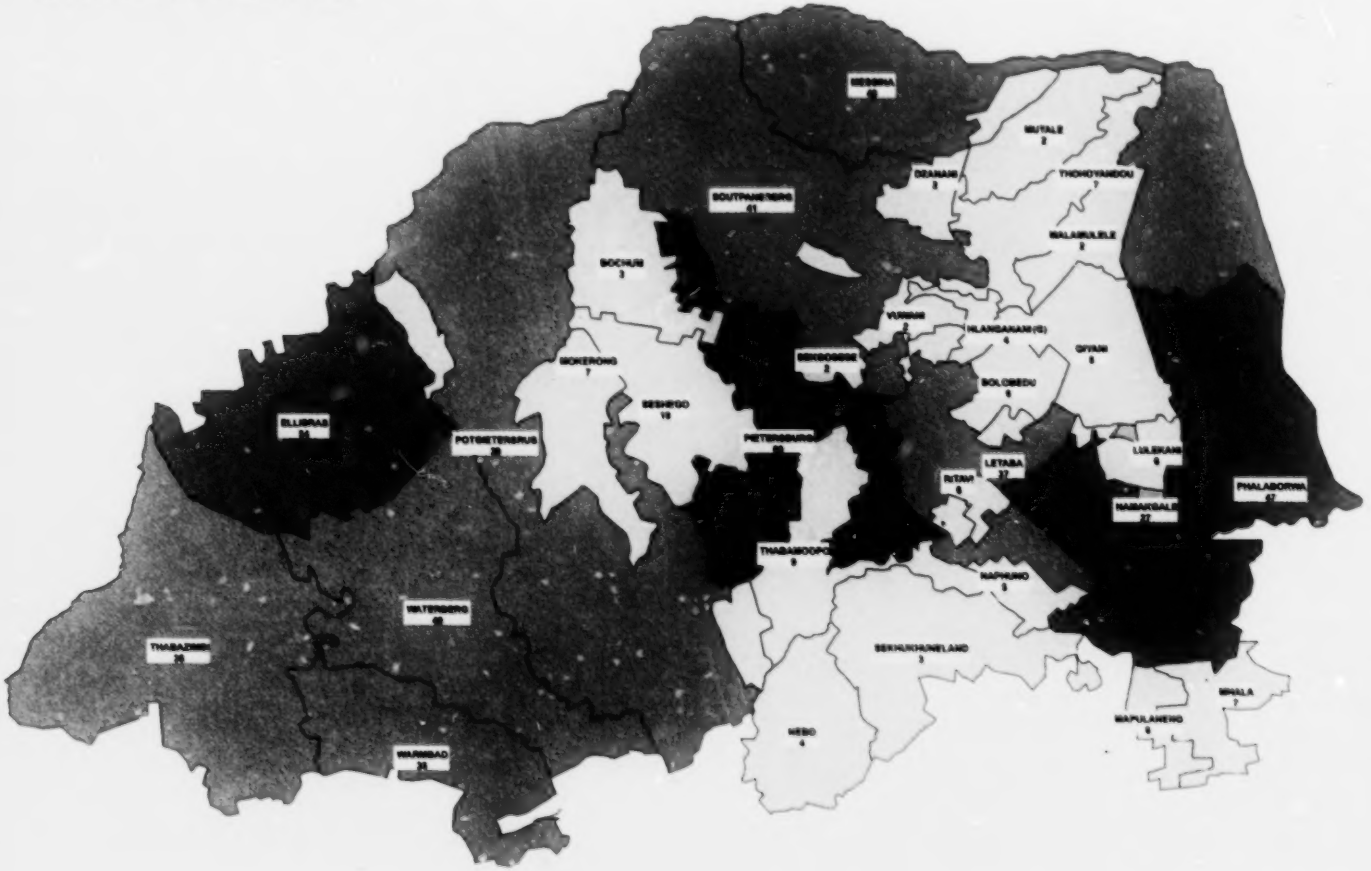

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Table 15 Percentage households with access to septic tank or waterborne latrine facilities

DISTRICT	TOTAL HOUSEHOLDS	HOUSEHOLDS WITH WATERBORNE SEWERAGE	HOUSEHOLDS WITH SEPTIC TANKS	% HOUSEHOLDS WITH WATERBORNE OR SEPTIC TANKS
Bochum	30 909	0	939	3
Bolobedu	43 207	1 661	972	6
Dzanani	24 603	45	496	2
Ellisras	6 162	2 641	660	54
Giyani	45 525	1 753	723	5
Hlanganani (G)	25 905	524	387	4
Letaba	15 151	2 583	3 024	37
Lulekani	12 644	567	171	6
Malamulele	37 145	332	508	2
Mapulaneng	48 258	1 059	2 014	6
Messina	5 823	1 924	424	40
Mhala	62 994	3 554	1 028	7
Mokerong	88 438	3 102	2 698	7
Mutale	10 748	22	220	2
Namakgale	12 502	3 341	92	27
Naphuno	37 717	875	915	5
Nebo	69 408	1 459	1 530	4
Phalaborwa	8 970	3 614	611	47
Pietersburg	17 539	10 941	1 159	69
Potgietersrus	16 546	4 608	1 894	39
Ritavi	33 910	1 437	584	6
Sekgosese	26 603	142	457	2
Sekhukhuneland	90 173	893	2 093	3
Seshego	62 387	5 248	1 135	10
Soutpansberg	9 315	2 319	1 478	41
Thabamoopo	77 575	5 249	1 434	9
Thabazimbi	9 725	1 964	1 468	35
Thohoyandou	49 911	2 780	718	7
Vuwani	27 043	343	331	2
Warmbad	9 119	2 419	790	35
Waterberg	10 066	2 691	1 292	40

7.4.2 Access to water facilities

The data source for this provincial analysis was the NELF database developed by Eskom in 1994. The accuracy of this database has been questioned within Eskom. It can be tested by summing the percentages of households with access to in-house water, garden taps only, community taps only and no water supply. This should total 100%, and the 31 districts in the Northern Province all have percentage totals of over 99%. The level of accuracy is therefore acceptable and spatial discrepancies should not occur owing to inaccurate data.

The Northern Province inherited 31 districts from the former black states of Venda (4), Gazankulu (6) and Lebowa (11), and from the white Transvaal (10) administrative areas of the old South Africa.

On-site water provision

Households with running water in the house or in the garden only fall into this category. According to the map, 20 of the former black areas are in the lowest percentage range of provision, that is between 4 and 18%. Namakgale, with 29%, is the only former black area that is in the second lowest range.

Pietersburg, the industrial and administrative centre of the province, at 74% has the highest percentage of on-site water provision. This is 18 % higher than Ellisras which has the second highest on-site provision. Of the former white districts Warmbaths has the lowest level of provision at 38%.

The dominant patterns relate to three levels of service provision. Firstly, Pietersburg has by far the highest level of provision. Secondly, the rest of the former white districts have lower levels of provision than Pietersburg but higher than the former black areas. Lastly, the former black areas have by far the lowest level of provision.

Off-site water provision

Households that access piped water from communal street taps fall into this category. As can be expected from the discussion on on-site provision, areas with low on-site provision in general correspond to areas of high off-site provision. The former Venda, Gazankulu and Lebowa districts that had low on-site provision have high levels of off-site provision. In these areas there are also high percentages of households with no access to water. Mapulaneng, in the south-east has 53% of households without access to water. The higher two ranges (37-53%) of percentage households without access to water contain 8 of the 21 former black districts. The range of 29 to 37% households without water contains 17 both former black and white districts. The 21 to 29% range of households without water has 5 districts, 4 former white districts and Namakgale. Pietersburg, in the lowest range, has 14% households without water.

A vast amount of work is required throughout the province to extend provision from off-site to on-site and from off-site to those with no access. The districts most critically affected by a combination of no access to water and communal tap provision only are the former black districts clustered south-east and north-west of Pietersburg, and the former Gazankulu and Venda districts.

Conclusion

The very high usage of bucket and pit latrines in all of the former Venda, Gazankulu and Lebowa districts indicates that a massive investment in sanitation is required since bucket and pit latrines are below the minimum acceptable level of sanitation. On-site water provision is very low in all the former black areas where large percentages of households are also without access to any water. There are also many former white districts where 30% of households are without access to water.

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Human Sciences Research Council

MAP 16 : PERCENTAGE HOUSEHOLDS WITH ACCESS TO ON-SITE WATER FACILITIES

Source : NELF Database

HSRC
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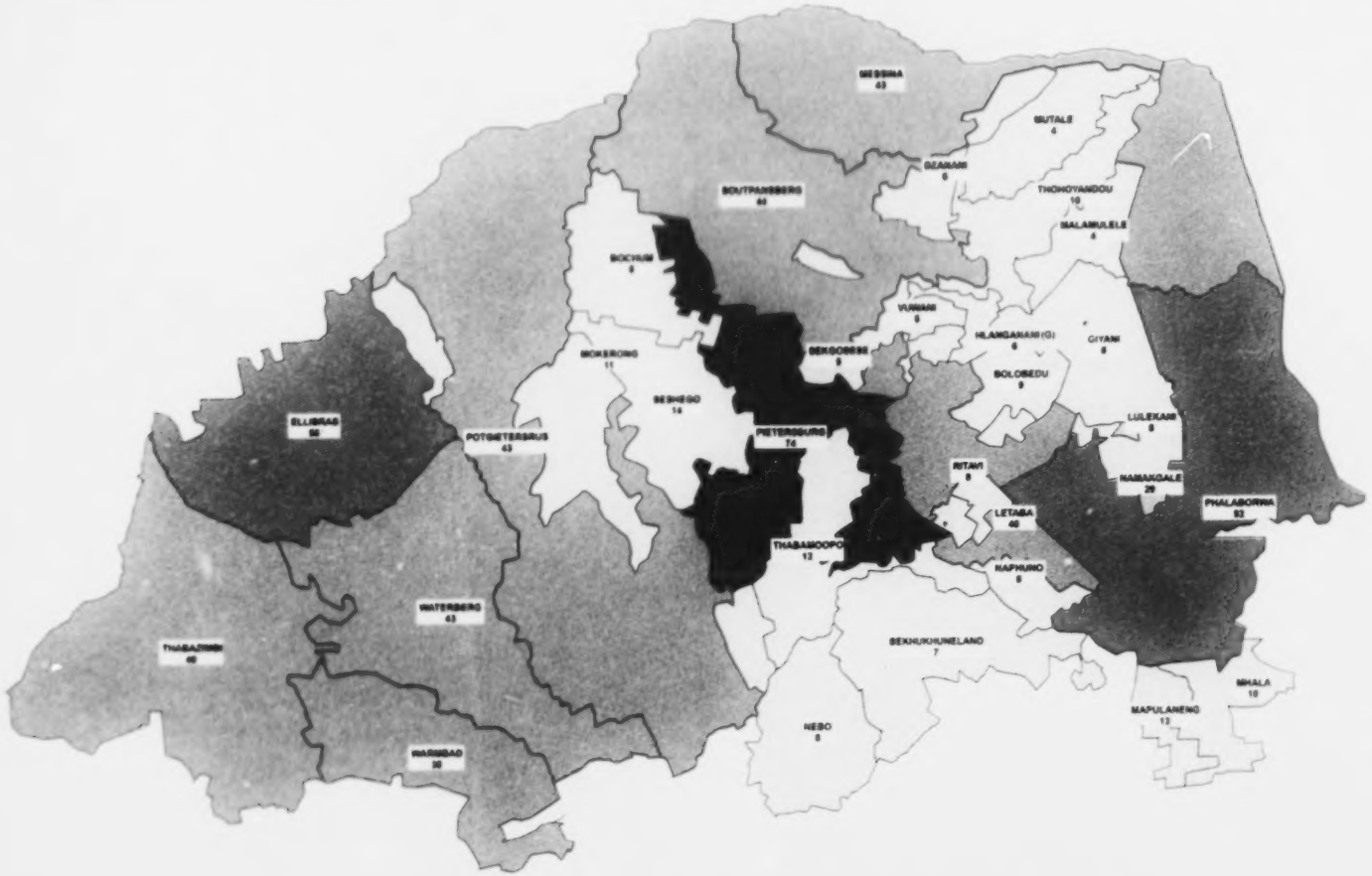
GIS UNIT



N

% on-site water

	4 to 18
	18 to 32
	32 to 46
	46 to 60
	60 to 74

KM

100

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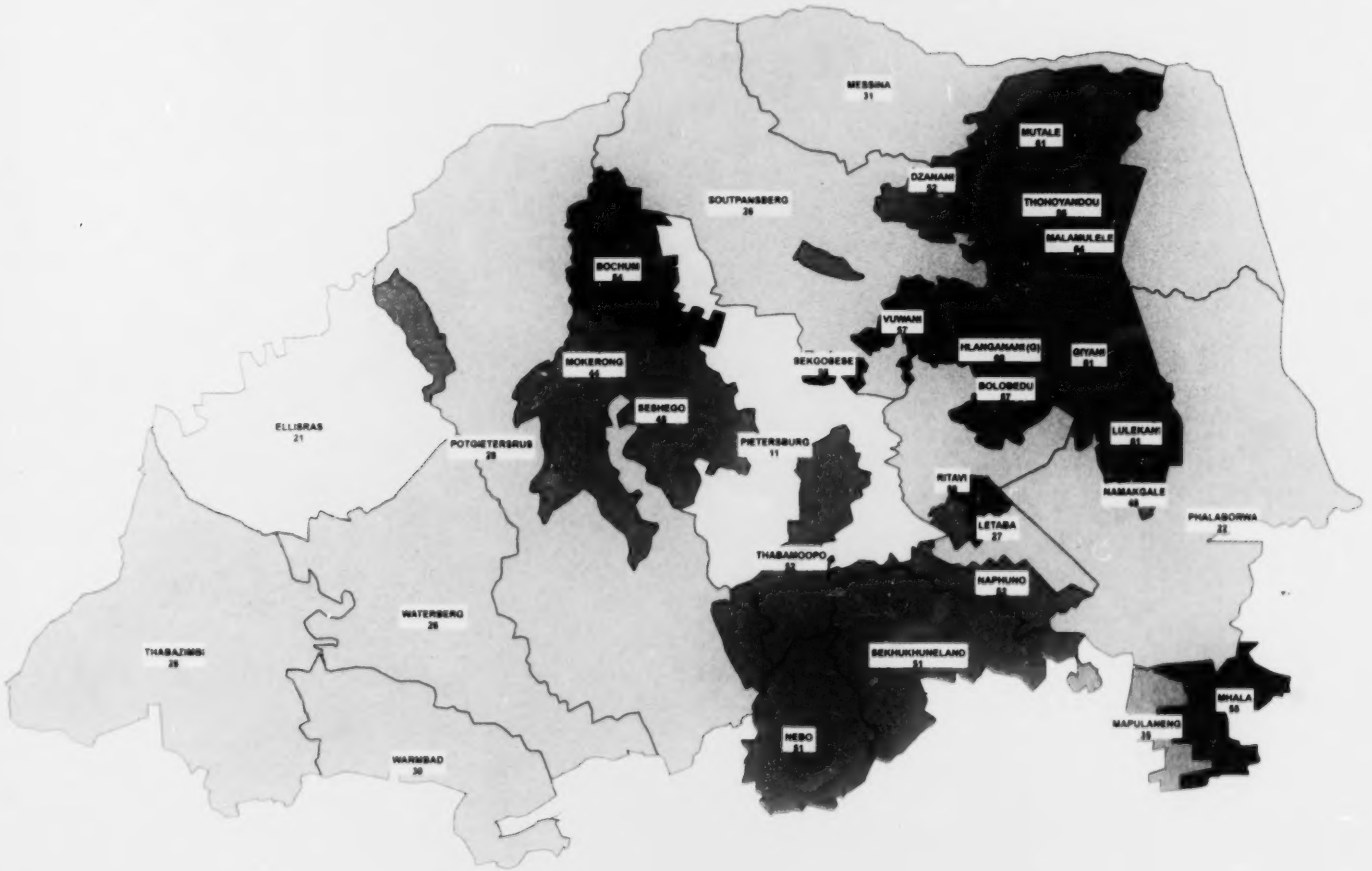
Table 16 Percentage households with access to on-site water facilities

DISTRICT	TOTAL HOUSES	IN-HOUSE TAP	ON-SITE TAP	% ON-SITE
Bochum	30 909	114	1 889	6
Bolobedu	43 207	1 600	2 157	9
Dzanani	24 603	109	1 366	6
Ellisras	6 162	3 049	431	56
Giyani	45 525	1 585	1 874	8
Hlanganani (G)	25 905	451	1 118	6
Letaba	15 151	4 654	1 416	40
Lulekani	12 644	580	414	8
Malamulele	37 145	357	1 172	4
Mapulaneng	48 258	1 150	4 902	13
Messina	5 823	1 781	738	43
Mhala	62 994	3 245	3 096	10
Mokerong	88 438	2 805	7 166	11
Mutale	10 748	87	384	4
Namakgale	12 502	3 152	509	29
Naphuno	37 717	895	2 157	8
Nebo	69 408	1 306	4 211	8
Phalaborwa	8 970	3 889	747	52
Pietersburg	17 539	11 771	1 294	74
Potgietersrus	16 546	5 434	1 634	43
Ritavi	33 910	1 561	1 271	8
Sekgosese	26 603	171	1 208	5
Sekhukhuneland	90 173	1 023	5 516	7
Seshego	62 387	5 241	3 467	14
Soutpansberg	9 315	3 343	782	44
Thabamoopo	77 575	5 299	3 893	12
Thabazimbi	9 725	2 865	1 027	40
Thohoyandou	49 911	2 344	2 456	10
Vuwani	27 043	313	1 144	5
Warmbad	9 119	2 231	1 234	38
Waterberg	10 066	3 120	1 197	43

MAP 17 : PERCENTAGE HOUSEHOLDS WITH ACCESS TO OFF-SITE WATER FACILITIES

Source : NELF Database

HSRC
RGN
GIS UNIT



N

% off-site water

11 to 22	
22 to 32	
32 to 43	
43 to 53	
53 to 64	

KM

100

Table 17 Percentage households with access to off-site water facilities

DISTRICT	TOTAL HOUSEHOLDS	TOTAL HOUSEHOLDS WITH OFF-SITE WATER	% HOUSEHOLDS WITH OFF-SITE WATER
Bochum	30 909	16 718	54
Bolobedu	43 207	24 828	57
Dzanani	24 603	12 689	52
Ellisras	6 162	1 266	21
Giyani	45 525	27 627	61
Hlanganani (G)	25 905	15 415	60
Letaba	15 151	4 122	27
Lulekani	12 644	7 728	61
Malamulele	37 145	23 754	64
Mapulaneng	48 258	16 733	35
Messina	5 823	1 797	31
Mhala	62 994	34 573	55
Mokerong	88 438	38 923	44
Mutale	10 748	6 573	61
Namakgale	12 502	6 043	48
Naphuno	37 717	19 733	52
Nebo	69 408	35 701	51
Phalaborwa	8 970	1 931	22
Pietersburg	17 539	1 955	11
Potgietersrus	16 546	4 602	28
Ritavi	33 910	19 995	59
Sekgosese	26 603	15 433	58
Sekhukhuneland	90 173	45 651	51
Seshego	62 387	29 854	48
Soutpansberg	9 315	2 410	26
Thabamoopo	77 575	40 257	52
Thabazimbi	9 725	2 734	28
Thohoyandou	49 911	27 941	56
Vuwani	27 043	15 480	57
Warmbad	9 119	2 704	30
Waterberg	10 066	2 632	26

7.5 Electricity

Introduction

Experience in other countries shows that substantial economic growth is not achieved until the large majority of the population has access to electricity. Electrification and economic growth go hand in hand. This does not mean that introducing electricity to an underserviced area without other social and infrastructural services is going to influence "rural-urban migration, population growth, education and literacy positively. It is only in countries such as the USA where broad rural development and employment programmes, in conjunction with electrification, have significantly improved the rural quality of life and reduced rural to urban migration" (Golding, 1992:2).

"Eskom has accelerated its electrification thrust over the past two years and its programme is on target. Eskom has electrified 639 741 homes since the electrification drive began at the end of 1990. This programme will positively affect the lives of more than eleven million people, giving them access to a clean, affordable and convenient source of energy and allowing them to become part of a modern industrially developing society" (Maree, 1995:3).

The electrification project

The electrification project began in 1990 in order to bring the benefits that access to electricity brings to more South Africans.

"In 1992 a survey was conducted in South Africa to determine the status of electrification in cities and towns, in trust areas, and in TBVC countries and national states. It was revealed that out of a total of 7,2 million homes, only 3 million were at that stage provided with electricity. This left an enormous 4,2 million homes without, only about 2 million of which could possibly be furnished cost effectively with electricity. The remainder would be difficult to electrify due to either the structure of the dwelling, the distance from the existing grid, lack of access to alternative energy sources, or simply as a matter of affordability" (The Electrification Project, 1995:1).

Once it was agreed that little economic growth could occur without the widespread use of electricity, Eskom committed itself to the electrification of almost one million homes over the following five years in areas where it had the right to supply. Given the economic recession, the time was ripe to put innovative technology to the test. Eskom decided to follow the route of the "prepayment meter or electricity dispenser" (The Electrification Project, 1995:1), which had been used successfully in other countries.

Electricity supplies in rural areas

Both dense and scattered rural settlements, which are located primarily in former homeland areas, have exceptionally low levels of access to electricity. Furthermore, demographic and electrification data concerning farm workers on commercial farms appear to be inadequate to support electrification planning.

"Many of the homes still needing electricity are situated far from the national grid in remote rural areas with a low-density population. At present only 12% of rural households have access to electricity. Eskom's electrification programme will raise this figure to 30% in 1999 and will have a positive effect on the quality of life. The cost of bringing network electricity to such areas will be very high. Eskom is constantly researching ways to substantially reduce the cost of rural electrification through appropriate technology" (Morgan, 1995:7).

Eskom and the RDP

Following the adoption of the Reconstruction and Development White Paper by parliament, Eskom published ten commitments demonstrating its support of the RDP. Many of these activities were already under way in the organisation and therefore reflect a change in degree rather than direction for Eskom.

Eskom undertook the following:

- Further reduce the real price of electricity by 15%, so as to become the world's lowest cost supplier of electricity.
- Electrify an additional 1 750 000 homes, improving the lives of 11 million South Africans.
- Change the staffing profile, to make 50% of management, professional and supervisory staff black South Africans.
- Educate, train and upgrade sufficient numbers of people to meet Eskom's future managerial, technical and other professional staff needs, *inter alia* by employing 370 black trainees and bursars per year, and enabling all Eskom employees to become literate.
- Maintain transparency and engage worker consultation in decision making.
- Contribute R50 million per year to electrification of schools and clinics, and other community development activities, particularly in rural areas.
- Enable all Eskom employees to own a home.
- Encourage small and medium enterprise development, through Eskom's buying policies and giving of managerial support.
- Protect the environment.
- Finance the above from own resources and from overseas development funding (Morgan, 1995).

National electrification planning - resources and institutions

"There is no national institution capable of co-ordinating and planning the national electrification programme. At present, planning takes place within each distribution agency, and Eskom assumes responsibility for the bulk of the connections targeted annually. Many municipal distributors have embarked on electrification programmes and conduct in-house planning. However, there is no overall national co-ordination of these activities, and no mechanism to ensure that the targets set by the RDP will be met. Eskom dominates planning for the electrification programme and its implementation, but has no jurisdiction in regions outside its supply areas. The National Electricity Regulator may be in a position to fill this institutional vacuum, but at present has limited capacity to monitor progress or to undertake detailed planning.

"Resources are also limited. Despite improvements over the past few years, there are large inadequacies in the data for many areas of the country. Eskom has begun to refine the demographic and electrification data, but is likely to concentrate on its own areas of supply. It will be some time before these data resources are developed to a point where accurate supply-side and demand-side information is available for the many municipal distributors around the country.

"Despite the limitations, national electrification targets have been set, at least until the year 2000, and the success of the programme will inevitably be judged in relation to these targets. But are national targets desirable? Although they have succeeded in increasing the rate of electrification, they favour a centralised planning and implementation system. But not only does centralised planning require extensive resources, it also affects the process of electrification and the ability of communities to participate in it effectively. The alternative approach is decentralised and demand-driven, with control over investment decisions located at lower tiers. Under this system, there is less need for a national planning institution. Instead more emphasis is placed on the need to monitor progress and provide adequate support to lower-tier organisations" (Davis, 1996: 477).

NELF and the regulator

"The National Electrification Forum (NELF) has completed the majority of its work and made an initial recommendation to Government that the distribution sector of the industry should be rationalised, national tariff systems should be implemented and that a national electricity regulatory authority should be established to oversee the industry. The result will be that many local government's will retain the right of supply in their areas. The National Electricity Regulator (NER) will be responsible for licensing all suppliers and ensuring that they perform to set standards" (Morgan, 1995:13).

This means that Eskom will have to be licensed and in future will be subject to regulatory jurisdiction. Also, Eskom will become responsible for supplies in large areas of the previous TBVC states and self-governing territories, while possibly handing over staff and assets in some urban areas where it is presently operative.

Community relations
Small business development and job creation

"The electrification programme provides employment for over 4 000 people involved in construction: 2 200 from Eskom and the balance as contractors employed by Eskom. In addition, about 2 300 people are employed in the local manufacturing industry to provide the materials required. Over a thousand people are employed in marketing, maintenance and administration functions in newly electrified areas. Where possible, Eskom uses subcontractors from small businesses in underdeveloped and electrification areas. Training programmes aim at employing members from the local community. Capital development projects affected more than a million people in 1994" (Morgan, 1995).

Community development

Eskom actively promotes community development through programmes designed to assist disadvantaged communities with a strong emphasis on education. Only projects at grassroots level with community support and accountability are supported. Over the past four years funding has risen from R4 million to approximately R40 million annually.

"In support of the electrification programme and Eskom's RDP commitments, Eskom increased its community development contribution by electrifying 562 schools and 21 clinics in 1994. During 1994, the Norwegian Agency for Development Cooperation pledged R15,2 million in grant funding for the electrification of schools and clinics" (Morgan, 1995).

7.5.1 Electrification of formal housing

The legacy of apartheid is evident in Map 18. In general the former white Transvaal districts have higher levels of electrification of formal housing than the former black Lebowa, Gazankulu and Venda districts. There are two notable exceptions in the former Gazankulu: the districts of Giyani (80%) and Malamulele (86%). Both of these are in the top range of 70 to 87%. The capital, Pietersburg, has the highest percentage of 87%. Ellisras and Thabazimbi, both former white districts, in the south west have 82 and 74%, respectively.

The lowest range, 3 to 20%, contains many of the former Lebowa, Gazankulu and Venda districts. This has created clusters of grossly underelectrified districts in the north-east, south-east and mid-west. The north-east cluster includes all of Venda, Hlanganani (Gazankulu) and Sekgosese (Lebowa). The former Lebowa districts of Nebo, Sekukhuneland, Naphuno and Mapulaneng form the south-east cluster. In the mid-west are two former Lebowa districts in the lowest range: Mokerong and Bochum. If the second lowest range, 20 to 37%, and the lowest range are considered together, it extends the lowest range clusters already described. Rural electrification is clearly a major issue in these clusters of districts in the lowest two ranges.

7.5.2 Electrification of informal housing

According to the data, one district, Mapulaneng, has 100% electrification of informal houses. This is highly unlikely and removed from the data on informal houses which now ranges from 0,8 to 47,5%.

The three underserviced clusters identified in the section on electrification of formal housing, also have underserviced informal housing. The only district in these three clusters that has a significant level of informal housing electrification is Bochum (32.9%). The districts in these clusters must be prioritised for rural electrification programmes of both formal and informal housing.

B. O' Leary
GIS Unit
Human Sciences Research Council

MAP 18 : PERCENTAGE FORMAL HOUSES ELECTRIFIED

Source : NELF Database

HSRC
RGN
GIS UNIT

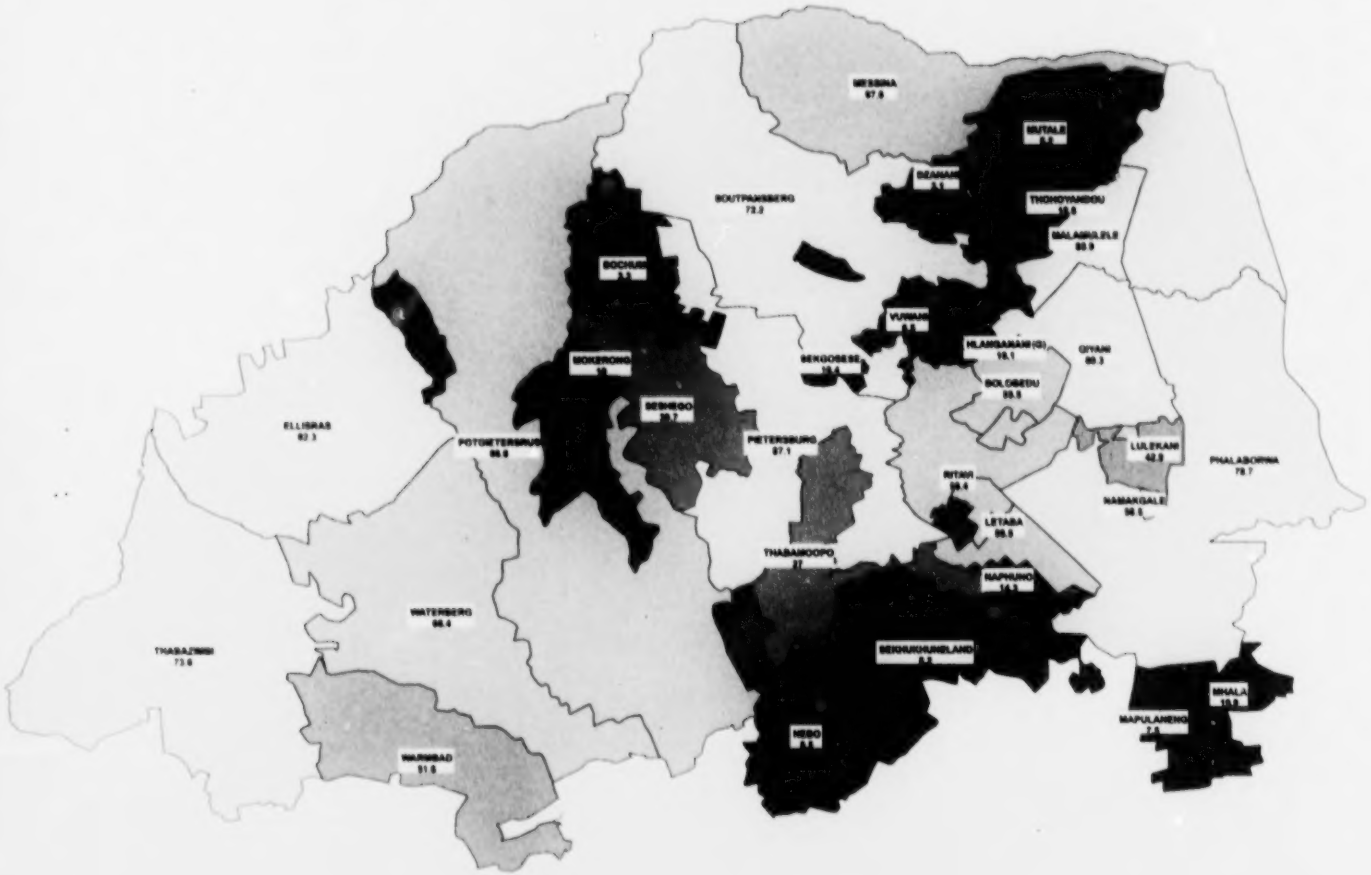


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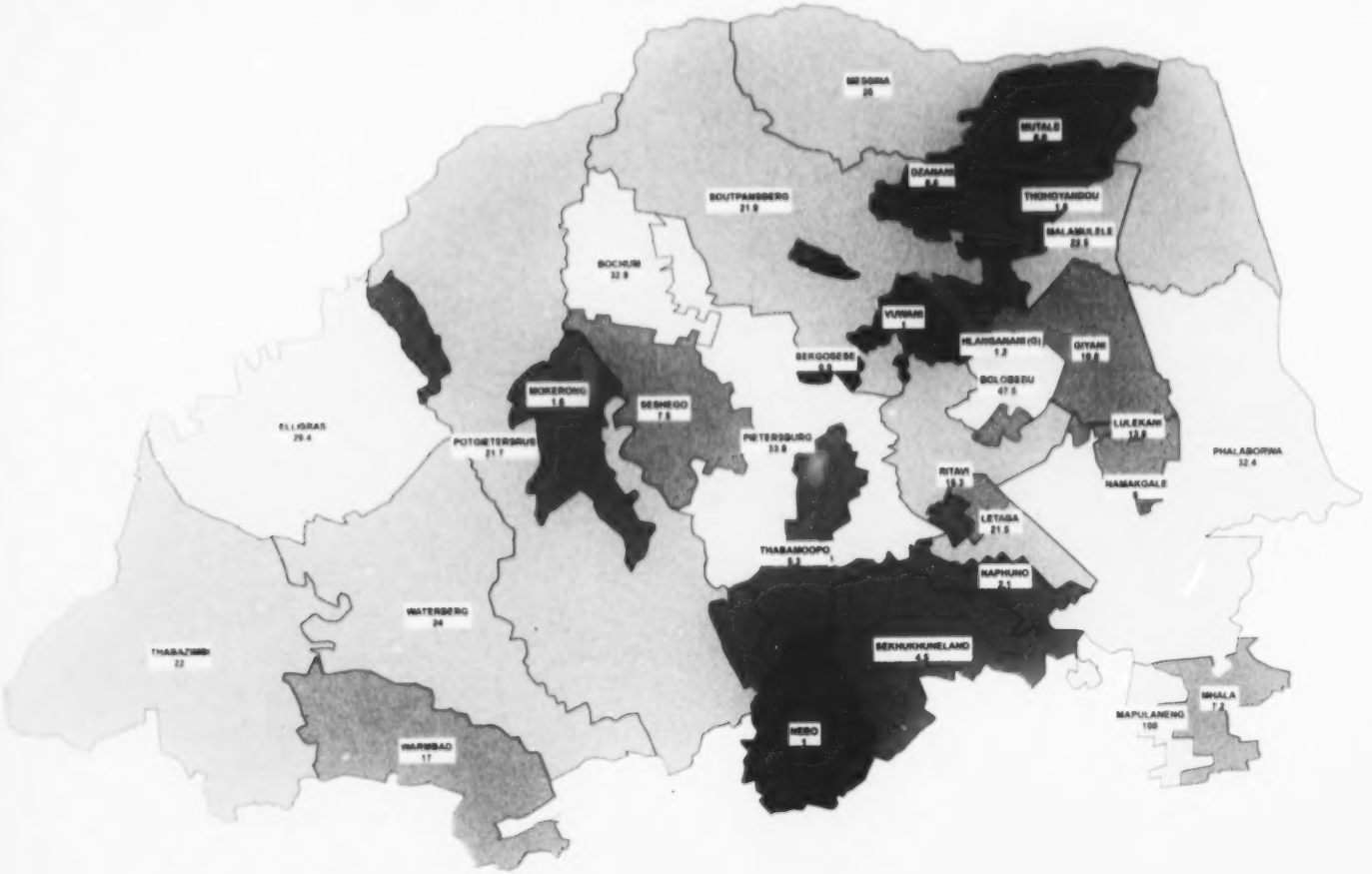
Table 18 Percentage formal houses electrified

DISTRICT	TOTAL ELECTRIFIED FORMAL HOUSES	TOTAL SERVICE POINTS	% ELECTRIFIED HOUSES
Bochum	340	10 343	3,3
Bolobedu	5 675	10 223	55,5
Dzanani	304	9 671	3,1
Ellisras	3 547	4 309	82,3
Giyani	5 583	6 957	80,3
Hlanganani (G)	859	5 319	16,1
Letaba	6 291	11 139	56,5
Lulekani	904	2 106	42,9
Malamulele	2 698	3 141	85,9
Mapulaneng	3 184	42 432	7,5
Messina	1 938	2 868	67,6
Mhala	4 307	21 629	19,9
Mokerong	5 510	55 251	10,0
Mutale	68	1 312	5,2
Namakgale	4 356	7 440	58,5
Naphuno	1 926	13 494	14,3
Nebo	2 444	28 617	8,5
Phalaborwa	5 708	7 256	78,7
Pietersburg	12 886	14 801	87,1
Potgietersrus	6 487	9 737	66,6
Ritavi	3 923	6 721	58,4
Sekgosese	607	5 856	10,4
Sekhukhuneland	3 283	39 964	8,2
Seshego	10 613	34 611	30,7
Soutpansberg	4 257	5 896	72,2
Thabamoopo	9 276	34 293	27,0
Thabazimbi	5 097	6 923	73,6
Thohoyandou	2 238	11 904	18,8
Vuwani	412	6 323	6,5
Warmbad	2 823	5 470	51,6
Waterberg	3 886	5 851	66,4

MAP 19 : PERCENTAGE INFORMAL HOUSES ELECTRIFIED

HSRC
RGN
GIS UNIT

Source : NELF Database



N

% units electrified

	,8	to	1,2
	1,2	to	6,0
	6,0	to	17,0
	17,0	to	25,0
	25,0	to	100,0

KM

100

Table 19 Percentage informal houses electrified

DISTRICTS	TOTAL ELECTRIFIED INFORMAL HOUSES	TOTAL SERVICE POINTS	% ELECTRIFIED HOUSES
Bochum	6 776	20 566	32,9
Bolobedu	15 679	32 984	47,5
Dzanani	124	14 932	0,8
Ellisras	545	1 853	29,4
Giyani	4 167	38 568	10,8
Hlanganani (G)	252	20 586	1,2
Letaba	864	4 012	21,5
Lulekani	1 458	10 538	13,8
Malamulele	7 651	34 004	22,5
Mapulaneng	5 826	5 826	100,0
Messina	738	2 955	25,0
Mhala	2 963	41 365	7,2
Mokerong	522	33 187	1,6
Mutale	81	9 436	0,9
Namakgale	306	5 062	6,0
Naphuno	500	24 223	2,1
Nebo	413	40 791	1,0
Phalaborwa	556	1 714	32,4
Pietersburg	925	2 738	33,8
Potgietersrus	1 477	6 809	21,7
Ritavi	4 166	27 189	15,3
Sekgosese	195	20 747	0,9
Sekhukhuneland	2 246	50 209	4,5
Seshego	2 092	27 776	7,5
Soutpansberg	750	3 419	21,9
Thabamoopo	2 287	43 282	5,3
Thabazimbi	617	2 802	22,0
Thohoyandou	616	38 007	1,6
Vuwani	202	20 720	1,0
Warmbad	621	3 649	17,0
Waterberg	1 013	4 215	24,0

7.6 Roads

Introduction

"Like so much else in our country South Africa's road infrastructure is an amalgam of both First World and Third World standards. The national and main road structures have played a very significant part in economic development of the country over the last 40 years and are destined to play an even more important part in the future. At the same time there are large sectors of the rural community that are inadequately served by roads. This is a situation which must be addressed as a matter of urgency if we are to achieve the planned levels of social and economic development" (A Future for Roads in South Africa, 1996:1).

South Africa's roads carry between 80 and 90% of all passenger and freight movements in the country. Despite their critical function there is a serious lack of funds for their maintenance and development.

The role of roads in development

"A good road (transport) system has been identified as the second most important catalyst in a country's social and economic development (after education). A former Administrator of the USA Federal Highway Administration stated: 'It was not our wealth which made our good roads possible, but rather our good roads which made our wealth possible.' This is an important message for South Africa which underlines the need for urgent and determined actions to be taken to preserve and, where necessary, improve our road network in the interests of social and economic development in South Africa" (A Future for Roads in South Africa, 1996:3).

Transport, especially road transport, is central to development. Therefore, without physical access to jobs, health, education and other amenities, the quality of life suffers. Without physical access to resources and markets, growth stagnates and poverty reduction cannot be sustained.

"An adequate road system plays a major role in the economic and societal health of a country. Therefore, such a road system should receive an appropriate and stable level of investment in order to establish and maintain the system. Also it should be effectively and efficiently managed to obtain the maximum return on scarce financial and physical resources" (A Future for Roads in South Africa, 1996:3).

Road network classification

"Roads and streets constitute the necessary communication links which provide adequate support for economic growth and which must satisfy the basic accessibility needs, i.e. the ability to be reached, and conversely, the basic mobility needs i.e. the ability to move, or be moved, easily, quickly and efficiently, of the population" (A Future for Roads in South Africa, 1996:7).

It is important to determine a suitable and encompassing classification for roads. Such an approach must be followed whereby roads are classified by recognising the authorities primarily responsible for their provision as well as the functionality of the different elements of the total network.

The classification is as follows:

- **National roads**

"The authority primarily responsible is the South African Roads Board. These roads provide mobility in a **national** context. Traffic on these roads is usually associated with longer travel distances and the design of the roads should make provision for relatively high speeds, and interference with through traffic should be minimized. These roads are provided primarily for **economic** reasons. They are regarded as strategic economic assets vital to the ability of the country to support and improve economic growth through industrial development and exports" (A Future for Roads in South Africa, 1996:7).

- **Provincial roads**

"The authorities primarily responsible are the provincial Departments of Transport and in some cases Public Works. Provincial roads are primarily provided for access and mobility in a **regional** context. These roads are designed for shorter travel distances and moderate speeds. Such roads usually form the links between towns not situated on the national road network" (A Future for Roads in South Africa, 1996:7).

- **Urban roads**

The authorities primarily responsible are city or local authorities. Urban roads are provided for mobility in urban areas.

"Although the provision of urban streets and roads is generally financed through local rates and taxes, the national and provincial road authorities do accept responsibility for certain national and provincial roads in urban and metropolitan areas to ensure route continuity. The Johannesburg outer ring road is such an example" (A Future for Roads in South Africa, 1996:9).

Classifying roads according to road user needs

"Roads satisfy various needs of the road user such as, for example, enhanced mobility. This they will do to a greater or lesser extent depending on their level of serviceability, which provides benefits of comfort, convenience, speed, safety and economy of travel. Many of the maintenance and upgrading activities performed within the road budget are aimed at increasing serviceability. By far the greater part of the benefits that they produce will accrue exclusively to the road-using public. Accordingly, it must be questioned whether the general taxpaying public should be required to pay for such improvements from the State Revenue Fund" (A Future for Roads in South Africa 1996:22).

Other needs, *inter alia*, include firstly that, like other forms of government activity in a market-oriented mixed economy such as South Africa's, roads must be economically efficient. This requires that the scarce resources available for roads must be apportioned to satisfy the greatest demands. This requires road provision to be sensitive to market signals.

"Road provision must also be equitable. There are a number of facets to this requirement. It may be more expensive to build and maintain roads under particular

climatic or topographical conditions than others, so that regions exhibiting difficult conditions may warrant subsidisation by others more fortunately placed. Economically disadvantaged regions of the country may need to receive special development efforts. Furthermore, a balance must be maintained between the provision of roads and the supply of public transport. This is so that the disadvantages experienced by social groups without regular access to private motor vehicles are not exacerbated" (A Future for Roads in South Africa, 1996:22).

Finally, road provision must satisfy certain strategic requirements. for example, access to certain development regions must be secured, and the quality of life in rural areas improved in order to prevent their depopulation.

There is a trade off between these goals and different groups within society at large may be held responsible for providing the funds needed for their satisfaction.

"In particular, the user pays approach to funding is appropriate to the goals of economic efficiency and increased serviceability required by the higher order roads, such as the national road network. By contrast, the goal of equity and provision of basic access implies that some users at least are not able to pay. Funding out of general tax revenue is thus required to satisfy this goal, as well as that of meeting strategic objectives where the road using public is not the beneficiary. Finally, user charging might need to be combined with subsidisation out of general revenue in order to satisfy the goal of environmental compatibility" (A Future for Roads in South Africa, 1996:22).

Road funding is a heterogeneous activity. Different road maintenance and improvement activities will satisfy different needs, and only in some cases will significant advantages accrue to the public at large. In other cases, benefits are experienced exclusively by road users, and can and should be "sold" to them like any other commodity.

Policy implications

The road network in South Africa faces a crisis. For many years now financial allocations from the Exchequer have been inadequate to meet the recurring needs of necessary maintenance, let alone provide much-needed rehabilitation, improvement and expansion of the network to cater for the rapidly growing demands on the network.

"The main provisions to address the undesirable situation in respect of the road network are institutional and financial. They relate to the institutional framework within which the national road network is managed; an inadequate flow of funds; inadequate conditions of employment to attract sufficient numbers of experienced road engineers and technicians; lack of clearly defined responsibilities; inadequate management systems; and a lack of managerial authority and accountability. Roads are managed like a bureaucracy, not a business. Managers simply do not have the funds or incentives to use resources efficiently - nor are they penalised for poor performance" (A Future for Roads in South Africa, 1996:33).

Solving these problems requires fundamental changes in the way governments manage, and especially finance their networks, particularly the national networks that

are provided primarily for economic reasons.

"The key concept for this level of roads which is emerging in many countries throughout the world is commercialisation. That means bringing the higher order roads into the market place, putting them on a fee-for-service basis and managing them like any other business enterprise. However since roads are a public monopoly, and likely to remain in government hands, commercialisation requires complementary reforms in other areas" (A Future for Roads in South Africa, 1996:33).

Such reforms would include

- involving the road user in the management of roads to win public support for more road funding, to control potential monopoly power and to constrain road funding to what is affordable;
- establishing a clear organisational structure to place the delivery of the national road programme outside the hands of the bureaucracy;
- securing an adequate and stable flow of funds and introducing secure arrangements to channel these funds to the road agency, and
- strengthening the management of roads by providing effective systems and procedures and strengthening managerial accountability.

"There is a strong case for the re-introduction of a dedicated fund for the national road system. The income to the fund needs to be generated by a levy on fuel as well as loan funds redeemed by road tolls. For the provincial and urban roads, where a significant increase in funding levels is also urgent, it appears appropriate that the financial sources should comprise vehicle licenses (greatly increased in magnitude) and annual appropriations from the Exchequer" (A Future for Roads in South Africa, 1996:33).

7.6.1 Access to road infrastructure

The department believes in the famous saying that good roads create wealth, not that wealth creates good roads. For this reason roads are viewed as an important vehicle for economic growth, social upliftment, and redressing some of the imbalances of the past.

The Northern Province is an amalgamation of four previous administrations that had different priorities and different standards. Thus the accessibility of roads in the province varies widely from district to district as shown by the figures in this report. Furthermore, the variation in road standards means that even districts with the same accessibility will not necessarily enjoy the same quality of service, for example Waterberg and Bolobedu, both of which have an accessibility of 0,23 but do not have the same quality of service. Without necessarily increasing the length of the road network, the province is trying to bring uniformity to each of the road categories.

According to the statistics in this report, the roads are not necessarily found where the population is concentrated, for example, Thabazimbi (0.18) has a higher accessibility than Sekhukhune (0.15) which has a higher population. This indicator therefore does not give a true reflection of road accessibility to the population when it is defined as length per unit area. A more meaningful indicator should incorporate a population statistic.

Accessibility should also take into account delays likely to be experienced by road users due to flooding of river crossings and should therefore be linked to the provision of bridges and all-weather roads. The Northern Province has approximately only 7 000 km of surfaced roads and 4 500 km of major gravel roads. Thus the rest of the 26 800 km may not be passable throughout the year.

The department is still finalising an inventory of the roads in the province. Preliminary data on the road network for the six administrative regions, comprising the districts quoted in this report, indicate a total road length of 24 000 km which differs significantly from the 26 000 km quoted. Updated information will gladly be provided as it becomes available.

The department is implementing a road management system that will help manage information about road infrastructure, conditions and usage. This will enable the department to make optional investment decisions on road upgrading, maintenance and rehabilitation. Although decisions will largely be based on total transport cost savings, the overall aim of providing access to good roads will remain paramount.

W. Tendaupenyu
Public Works

MAP 20 : LENGTH OF ROADS PER SQUARE KILOMETRE

HSRC RGN GIS UNIT

Source : Surveyor General

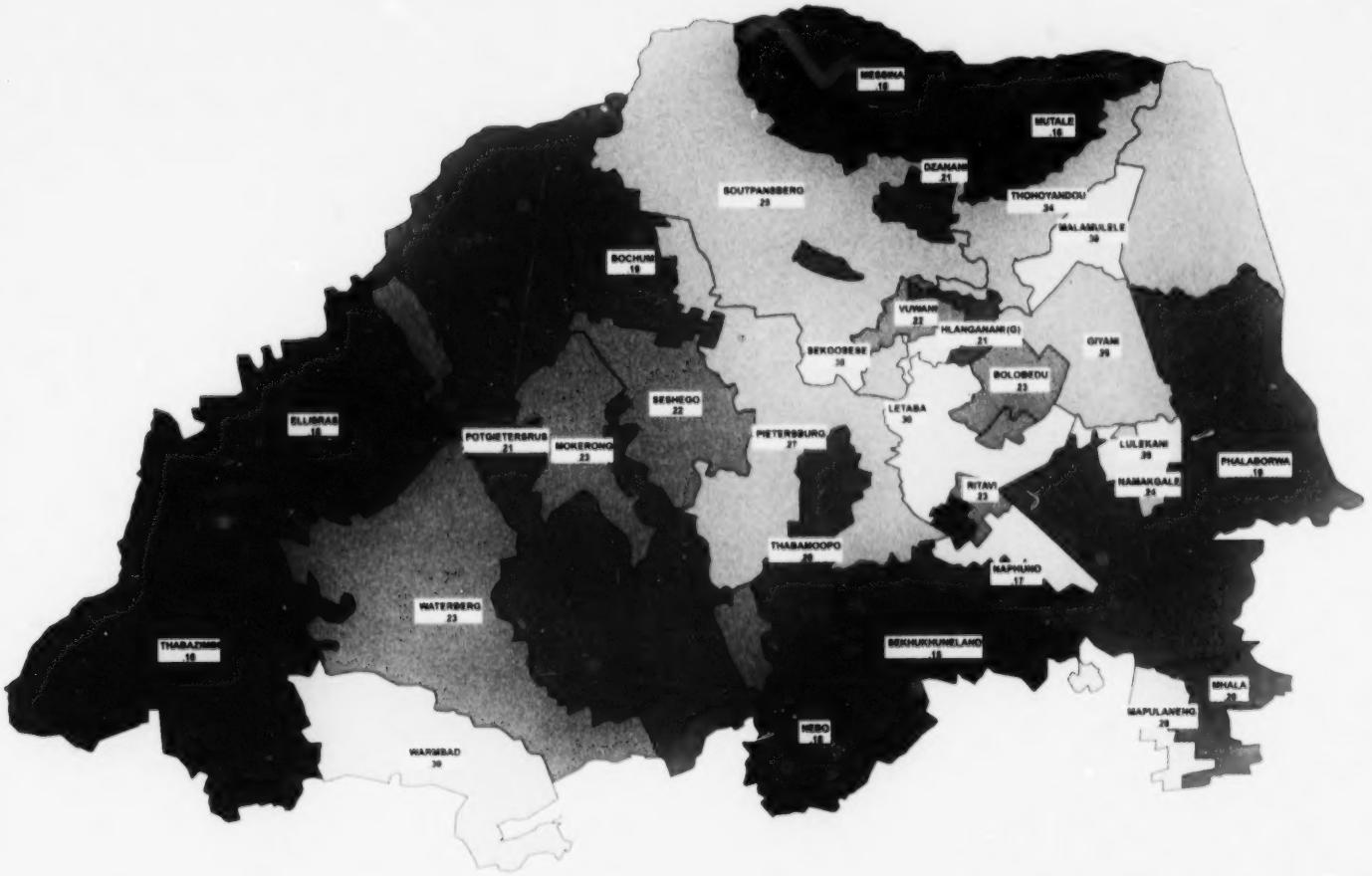


Table 20 Length of roads per square kilometre

DISTRICT	LENGTH OF MAJOR ROADS	AREA (KM²)	LENGTH PER KM²
Bochum	452	2 437	0,19
Bolobedu	252	1 108	0,23
Dzanani	316	1 490	0,21
Ellisras	1 313	7 364	0,18
Giyani	711	2 739	0,26
Hlanganani	97	463	0,21
Letaba	1 000	3 366	0,30
Lulekani	232	844	0,28
Malamulele	389	1 300	0,30
Mapulaneng	255	910	0,28
Messina	951	5 337	0,18
Mhala	296	1 507	0,20
Mokerong	851	3 707	0,23
Mutale	323	2 019	0,16
Namakgale	35	148	0,24
Naphuno	157	924	0,17
Nebo	502	2 745	0,18
Phalaborwa	2 102	11 126	0,19
Pietersburg	1 680	6 201	0,27
Potgietersrus	3 370	16 095	0,21
Ritavi	131	562	0,23
Sekgosese	224	593	0,38
Sekhukhune	580	3 996	0,15
Seshego	645	2 953	0,22
Soutpansberg	3 603	14 199	0,25
Thabamoopo	522	2 673	0,20
Thabazimbi	1 955	10 599	0,18
Thohoyando	555	2 357	0,24
Vuwani	144	641	0,22
Warmbad	1 327	4 366	0,30
Waterberg	1 881	8 156	0,23

7.7 Telecommunications

Introduction

The first section dealing with the government's vision, the RDP, economic growth and empowerment and economic empowerment of historically disadvantaged South Africans has been abridged from the second draft of the White Paper on Telecommunications Policy, 1996. The second section, which is an analysis of residential line provision in the Eastern Cape, was conducted by the HSRC.

The state's vision for the telecommunications sector

The state recognises the central importance of access to telecommunications to the achievement of its economic and social goals. Affordable communications for all, citizens and business alike, throughout South Africa, is at the core of its vision and is the goal of its policy.

The challenge is to articulate a vision that balances the provision of basic universal services to disadvantaged rural and urban communities with the delivery of high-level services capable of meeting the needs of a growing South African economy.

The vision must therefore reconcile these two seeming opposites within an integrating framework which also allows for a dynamic definition of universal service and facilitates the co-ordination of all available infrastructure in support of its goal.

The RDP

"The telecommunications sector is key to the success of the RDP. Access to communications facilities is not only necessary for the delivery of services in critical sectors such as education and health; it also serves to stimulate the creation of small business and offers a channel of communication to reinforce participation in democratic processes at community, provincial and national levels. It is the essential backbone for development and offers the only opportunity for leapfrogging its relatively slow sequential phases" (White Paper, 1996:17).

Economic growth and empowerment

The telecommunications sector is both a source of economic growth and an enabler of growth in other sectors.

As a source of economic growth the sector itself offers opportunities for locally developed innovative products and services which, with appropriate transfers of skills and technologies, can contribute significantly to economic empowerment of previously disadvantaged communities. The sector can make an important contribution to export growth and import substitution.

As an enabler of growth the sector forms part of the basic infrastructure needed to stimulate economic activity including the creation and development of business in all sectors and therefore the growth of the economy as a whole. An integrated high-quality network providing value-added services and access to the international information highway is required to support the needs of South Africa's internationally competitive

industries and link its economy into the global system. Improved communication with the African region will reinforce South Africa's presence by facilitating exchanges among institutions in the public and private sectors and by providing opportunities for technology exports.

Because of the fundamental importance of the telecommunications sector to national economic growth and development, planning for the sector should be closely integrated into broad economic, trade and social planning and effectively linked with other information policy initiatives.

Economic empowerment of historically disadvantaged South Africans

"Political empowerment of the majority through democratic processes underway in the country must be accompanied by economic empowerment in order to achieve the national goal of sustainable social and economic development. The creation of meaningful jobs, wealth and a decent standard of living for the population will give meaning to their right to vote. Thus, political power cannot bring stability and growth without addressing the issue of historical disparities within the economic power. Besides referring to those who were disadvantaged by the apartheid system in the past, the term 'disadvantaged' also applies to those South Africans who have been historically disadvantaged through discrimination on the grounds of gender and/or disability. In the context of telecommunications the severe disadvantage experienced by members of rural communities under apartheid should receive special attention.

"Economic empowerment of historically disadvantaged communities is a deliberate programme of achieving meaningful participation by all members of these communities in all aspects of productive economic activities in South Africa as consumers, workers, managers and owners. Achievement of sustainable economic empowerment for historically disadvantaged communities will require a deliberate long-term phased programme utilising a wide spectrum of approaches. These will include the extension of telecommunications services to all; broadening the equity ownership of current and future enterprises (subject to the state assets debate); creating opportunities for meaningful employment and management; and the effective promotion of entrepreneurship. The effectiveness of any of these aspects and the success of the overall programme of economic empowerment will be rooted in the principle of a broad-based and non-discriminatory involvement of all communities in the economic development of South Africa. Human resource development within the telecommunications sector also needs to be seen as a form of economic empowerment to enable disadvantaged South Africans to participate in the industry effectively" (White Paper, 1996:40).

7.7.1 Residential line shares

Data related to the Northern Province were analysed in terms of residential line supply only. During the time of writing Telkom were sensitive about the public release of actual numbers of residential lines per magisterial district. This was due to uncertainty regarding the future restructuring of Telkom and the possible utilisation of data by competitors. The 1996 Census will however place this data in the public domain.

To accommodate Telkom's sensitivities residential line data were transformed to indicate district priority. Very high priority districts are those districts that are currently well below the provincial average with regard to the provision of shared lines. The other priority ranges are high, medium, low and very low. The very low priority districts have a residential line penetration that is much greater than the provincial average.

The Northern Province comprises 31 districts from the former South Africa: 4 from Venda, 6 from Gazankulu, 11 from Lebowa and 10 from the former white Transvaal. The provision of telephones in the 21 districts from the former black homelands and self governing states is extremely poor. This is reflected in the table where 20 of these are very high priority and 1 is high priority.

The 10 former white Transvaal districts are all within the medium to very low priority range. There is a massive disparity between provision in the former black and former white districts.

If the telecommunications sector is to be both a growth sector in itself and a means by which other sectors can develop, then a long-term strategy concomitantly to supply universal access to historically disadvantaged rural and urban communities and also to form part of the infrastructure vital to a developing economy is required. Telkom's Vision 2000 strategy hopes to increase the number of subscribers by 2-3 million. This will only be possible if a strategic equity partner (SEP) is found for Telkom. This will allow the rate at which new services are provided to treble. The government is Telkom's main shareholder and will oversee the appointment of an SEP perhaps by March 1997.

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MAP 21 : TELECOMMUNICATIONS PRIORITIES

Source : Telkom 1995

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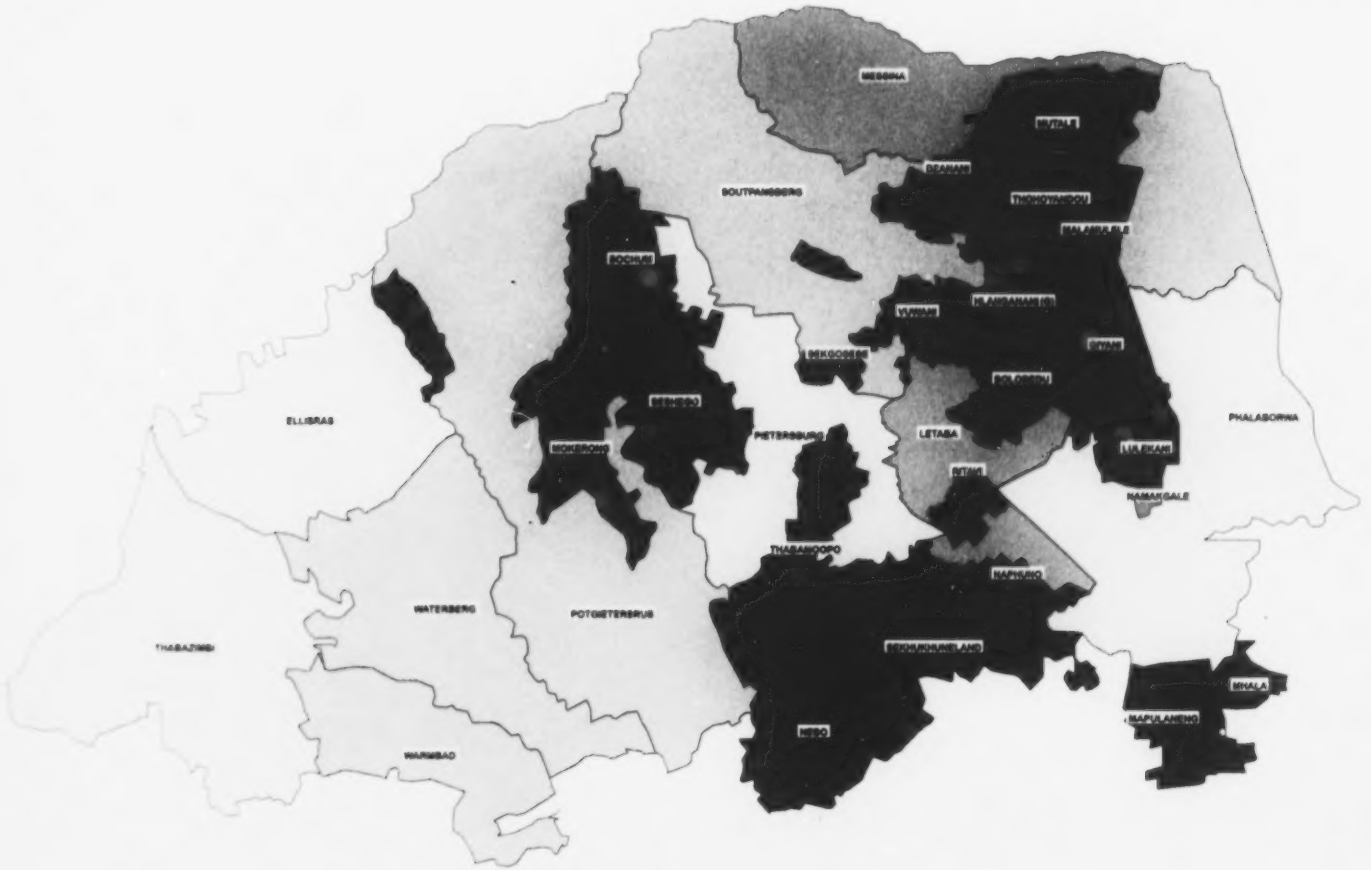


Table 21 Telecommunications priorities

DISTRICT	PRIORITY	RANK
Bochum	Very high	1
Sekgosese	Very high	2
Mutale	Very high	3
Sekhukhuneland	Very high	4
Mapulaneng	Very high	5
Bolobedu	Very high	6
Malamulele	Very high	7
Nebo	Very high	8
Naphuno	Very high	9
Mhala	Very high	10
Mokerong	Very high	11
Lulekani	Very high	12
Hlanganani	Very high	13
Giyani	Very high	14
Vuwani	Very high	15
Ritavi	Very high	16
Dzanani	Very high	17
Thabamoopo	Very high	18
Seshego	Very high	19
Thohoyandou	Very high	20
Namakgale	High	21
Letaba	Medium	22
Messina	Medium	23
Warmbad	Low	24
Waterberg	Low	25
Soutpansberg	Low	26
Potgietersrus	Low	27
Thabazimbi	Very low	28
Phalaborwa	Very low	29
Pietersburg	Very low	30
Ellisras	Very low	31

7.8 Postal services

"The South African Post Office is an independent public company, fully complying with the regulations laid down in the Companies Act. The State is the sole shareholder. Parliamentary control has been replaced by a Board of Directors, consisting of respected business and community leaders from outside the company, and a Management Board, headed by a Managing Director. The Post Office aims at profit-making. Financial accounts and statements are compiled in terms of the Companies Act. Taxes are paid on any profits and the current shortfall is subsidised by the State" (SA Post Office, 1993:4).

The main activities

"The Post Office is responsible for the handling and delivery of an average of 7,7 million mail items each working day, counter services at more than 1 600 post offices countrywide and the Post Office Savings Bank, now known as the Postbank" (SA Post Office, 1993:4).

The Post Office also acts as an agent for a number of private and public organisations such as Telkom SA for the collection of telephone account payments and the SABC for the collection of television licence fees. Similarly, the paying of pensions; the selling of scratch cards; and the collecting of water and electricity account payments for certain municipalities; as well as the selling of revenue stamps are handled by the Post Office (SA Post Office, 1993:4).

Reshaping the postal services

In 1993, the Post Office embarked on a programme to streamline the postal business to ensure a quicker, more effective service that puts its clients first. This entails the following:

- **Placing basic postal services within easy reach**

Since May 1993, postage stamps have been available at certain local bookshops, supermarkets, chemists, cafe's, spaza shops and filling stations. One-stop shopping has been introduced by selling postage-paid envelopes, easy-to-use packaging and other articles needed to facilitate the mail service for clients. A larger variety of such services and products was introduced with the opening of postal shops in 1994/95. A single-queue system has been introduced at most of the major post offices to enable clients to do all their postal business, including banking business, at the same counter (SA Post Office, 1993:4).

- **Creating an infrastructure to suit the entire community**

It is Post Office policy to take the post office to the clients. For this reason, more post offices will be opened in shopping centres and inside existing host undertakings. This will make it easier for clients to do their postal business together with other business, even during extended office hours. The first retail postal agencies were introduced in 1994/95 (SA Post Office, 1993:4).

- **Giving each person a postal address**

"A massive three million additional postboxes, mainly as transportable mail collection units or postbox lobbies, are to be placed all over South Africa within the next five years to enable each household to receive mail. The focus will be on underdeveloped areas where no postal delivery service exists. This entails clients' collecting their own mail at postbox lobbies placed at convenient places after negotiation with communities. The other mail delivery options available include private postboxes, fixed poste restante (transportable postbox lobbies) and street delivery" (SA Post Office, 1993:5).

- **Delivering mail according to set standards**

In April 1993, the Post Office introduced set mail delivery times. This entails delivery within two days in the same town or city, four days between towns and cities in the same province and between major centres in different provinces and five days to more remote places for inland standard economy mail. An additional day should be allowed for non-standardised and insured/registered or COD items. The day on which the letter is posted should not be taken into account. The Post Office's performance is measured against these set standards by external auditors and the Post Office is held publicly accountable to its clients (SA Post Office, 1993:5).

- **Creating a computer network to facilitate counter services**

In 1994 the Post Office started to expand its computer network to link 5 000 counter service points countrywide. The system, known as **Excellpos**, will reduce paperwork to a minimum, expedite service at the counter and cut the waiting time in queues considerably (SA Post Office, 1993:5).

Inland mail service

Three mail services are available: Economy mail, Fastmail and Speed Services.

Economy mail

Economy mail is the ordinary mail service in South Africa. The new standard postage stamp without face value may be used on all inland standard letters. Should it be used on non-standard items and overseas mail, additional postage stamps must be affixed (SA Post Office, 1993:5)

Fastmail

Fastmail undertakes to deliver items at least one day earlier than Economy mail in terms of the set delivery times. Fastmail comprises any standardised or non-standardised letter to a maximum of two kilograms, which must be handed in at a post office counter. Clients may use the Fastmail envelopes on sale at post offices or use their own envelopes. Stickers have been specially designed to ensure the item receives priority treatment throughout the mail handling process (SA Post Office, 1993:5).

Speed Services

An extension of the priority mail service, Speed Services provides the following options to get urgent mail items to their destinations within the shortest possible time:

- Same-day delivery
- Overnight delivery
- International speed delivery

To make it even more convenient, clients may choose from

- counter-to-counter delivery,
- counter-to-door delivery,
- door-to-counter delivery, and
- door-to-door delivery.

Speed Services guarantees delivery times and will compensate losses. Speed Services is also able to trace mail items at any given time (SA Post Office, 1993:5)

7.8.1 Access to postal services

There is a great imbalance in the distribution of post offices for the different race groups as a result of past apartheid policies. The traditionally white areas have sufficient post offices, while there is a great shortage of outlets in the traditionally black areas. The establishment of post offices was based on political decisions and not on the needs of the people. The former homeland areas (Venda, Gazankulu, Lebowa) in the Northern Province, where we find the majority of the population, are the worst off.

More post offices are needed especially in Hlanganani, Sekgosese, Giyani, Ritavi, Bolobedu, and Sekhukhuneland, since post offices render an important service to communities. The Northern Province is largely made up of large farms and rural areas. Most of the people living in these rural areas work in the metropolitan areas. A post office is their only means of communication with their families. It is also their only reliable means of sending money to their families. Furthermore, most rural people bank at their post offices because there are no banks in these areas.

The few post offices in the black areas are mostly found in the semi-urban areas such as the townships. However, their distribution even in the townships is insufficient where a single post office serves up to 250 000 people or more. Giyani is a good example of this.

People in rural areas are served by postal agencies that render about 20% of the postal services. This means that people in rural areas still have to travel up to 50 km to their nearest post office for the services that are not rendered at the postal agencies.

Accessibility

Access to postal facilities for township residents is far superior to that for rural people, the one problem being that township people have to contend with long queues, because one post office serves a very large population.

The rural people who depend on postal agencies are also at the mercy of the business operating such an agency. The postal agent may open and close the agency at any time, at times making it difficult for the people to get service.

Access to postal facilities for the people in the most remote rural areas is very poor because of the lack of roads and regular transport.

The Venda area, re-incorporated into the Northern Province in April 1996, is one of the worst off areas. Services have collapsed in most of the former homelands, because of the lack of funds and poor administration. Almost all post office buildings will have to be renovated and some will have to be replaced by new structures as they are no longer fit for use.

Future plans

The region has a ten year plan to provide services to previously unserviced areas. The successful implementation of the plan depends on the availability of funds.

The previously unserviced areas with large populations of more than 10 000 people will receive priority. Postal services will be provided by conventional post offices, post points, retail postal agencies and transportable lobby boxes. The region is in the process of upgrading its postal agencies to retail postal agencies that render 60% of the postal services. The upgrading will be completed within the next six months.

Future plans include establishing fully-fledged post offices within 20 km of a retail postal agency to support it and service the transportable lobby boxes. The region is also in the process of relocating poorly situated post offices to more central positions to give better access to more communities. However, the process is being hampered by a lack of funds and infrastructure.

The lack of postal facilities in previously disadvantaged communities is a national problem. The problems experienced in the semi-urban and rural areas of the Northern Province are similar to those of other regions.

To meet future service demands, the region will have to open an average of five post offices per year for the next ten years. Allocation of the necessary funds and infrastructure will expedite the provision of postal facilities and services to all the unserviced areas in the region.

Comments on the data

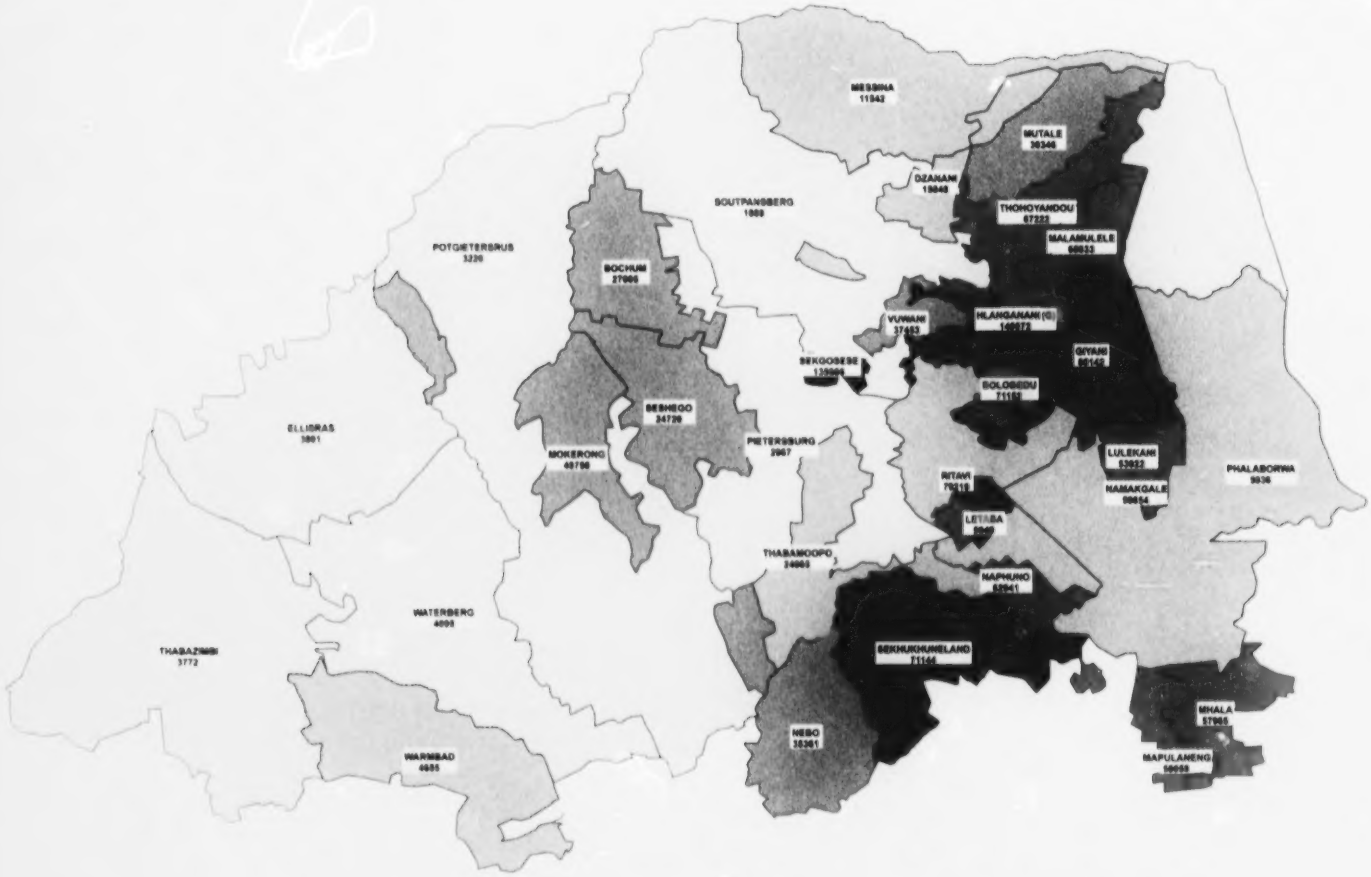
The combination of post offices and postal agencies per population can be misleading because postal agencies render only 20% of all postal services. The district-based analysis does not give a true reflection of the distribution network because most outlets are concentrated in the traditionally white areas and the townships.

M.D. Lamola
Ndala Mnisi
South African Post Office Limited

MAP 22 : POPULATION PER POST OFFICE AND POSTAL AGENCY

Source : Post Office Sales and Marketing

HSRC
RGN
GIS UNIT



N

Population per post offi

1 669	to	4 095
4 095	to	24 065
24 065	to	40 750
40 750	to	67 222
67 222	to	140 072

KM

100

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Table 22 Population per post office and postal agency

DISTRICT	POSTAL OFFICES AND POSTAL AGENCIES	TOTAL POPULATION	POPULATION PER POSTAL FACILITY
Bochum	6	162 032	27 005
Bolobedu	3	213 455	71 152
Dzanani	9	135 428	15 048
Ellisras	7	26 607	3 801
Giyani	3	240 425	80 142
Hlanganani (G)	1	140 072	140 072
Letaba	10	59 491	5 949
Lulekani	1	53 922	53 922
Malamulele	3	195 099	65 033
Mapulaneng	4	232 231	58 058
Messina	2	23 084	11 542
Mhala	5	289 825	57 965
Mokerong	12	489 005	40 750
Mutale	2	60 692	30 346
Namakgale	1	59 854	59 854
Naphuno	3	188 823	62 941
Nebo	10	353 612	35 361
Phalaborwa	6	30 218	5 036
Pietersburg	22	65 263	2 967
Potgietersrus	21	67 620	3 220
Ritavi	2	158 437	79 219
Sekgosese	1	135 666	135 666
Sekhukhuneland	6	426 865	71 144
Seshego	13	321 356	24 720
Soutpansberg	21	35 050	1 669
Thabamoopo	16	385 039	24 065
Thabazimbi	13	49 035	3 772
Thohoyandou	4	268 887	67 222
Vuwani	4	149 812	37 453
Warmbad	9	41 891	4 655
Waterberg	12	49 135	4 095

7.9 Police services

General overview

Policing in South Africa has traditionally not developed as a service aimed at meeting the needs and aspirations of our diverse communities. Policing was rather the appropriation and domination by particular governments to enforce specific political ideologies that were inconsistent with the democratic and popular aspirations and demands of the majority of people in South Africa.

The April 1994 elections ushered in a democracy that completely redefined the political and social context within which policing in South Africa is to function. "The advent of democracy demands a fundamental reassessment and transformation of the nature and style of policing. The Constitution prescribes the establishment of a national Police Service that is to be representative, legitimate, impartial, transparent and accountable - one which upholds and protects the fundamental rights of all people and carries out its mission in consultation and co-operation, and in accordance with the needs of the community" (SAPS: Website, 1996).

Transformation of the South African Police Service

The transformation process of the South African Police Service is aimed at "meeting the requirements of the Constitution, the policies of the Government of National Unity and the very urgent need for the creation of a safe and secure environment for all citizens in our country that is conducive to development and quality of life. Indeed the prevailing climate of change in South Africa presents a golden opportunity to address a range of issues relevant to democratic policing" (SAPS: Website, 1996).

The RDP and the South African Police Service

There are five interlinking or interdependent programmes to support the transformation process. However, as the current budget does not allow for this "step-change", assistance was applied for from the RDP fund and official donors. Such assistance will be short term (two to three years), until the South African Police Service budget is able to support RDP principles. The five programmes are: the Community Policing Programme; the Information Management Programme; the Victim Support Programme; the Human Resource Development Programme and the Infrastructure Development Programme . These programmes will act as leverage, and will phase in the underlying objectives of the transformation process over the stated period (SAPS: Website, 1996).

To provide effective policing, SAPS and the RDP have established two policing plans: the "Shield and Sword Plan" and "Community Policing".

Shield and Sword

The increasing stranglehold (both physical and psychological) of crime on South Africa must be broken immediately if our democracy and economy are to survive and prosper. The firmest and most decisive action must be taken against crime immediately to prevent South Africa from plunging into the abyss of becoming yet another anarchic country. The eyes of South Africa and indeed the entire world are

now on the SAPS to take the lead in the war against crime. The organisational framework within which crime is fought and beaten is the annual police plan required by parliament. Each police plan is a campaign in the war against crime, to be fought and won within the context of the government's recently announced National Crime Prevention Strategy (NCPS) (*Servamus*: 1996).

Police Plan 1996-1997

"The Police Plan for 1996/1997 is the first of its kind. It is a no-nonsense back-to-basics policing plan aimed at crushing crime wherever it is encountered; it is also a radical reassessment and reorganisation of policing at grassroots level in South Africa. Operationally, the heart of the police plan is a 'Sword and Shield' approach where SAPS takes the offensive by hunting down criminals everywhere, whilst preventing crime by systematically reclaiming streets and rural areas from criminals. The SAPS will take the initiative from the criminals by turning them, and not law-abiding citizens, into the prey The 'Sword and Shield' approach will simultaneously break the psychological and physical grip of crime and systematically reduce the operational capacity of criminals. Both serious and so-called 'petty crimes' will automatically fall within its ambit to turn the tide against criminals, thereby establishing a culture of respect for the law" (*Servamus*: 1996).

The following shall be implemented with the "Sword and Shield" approach:

Sword

The "Sword" refers to the mobile striking force of the SAPS by which specialised SAPS units dealing mainly, but not exclusively, with crimes prioritised in the police plan will relentlessly hunt identified criminals, day and night. These categories include hijacking and other vehicle-related crimes, gang-related crimes, taxi violence, possession of and trafficking in illegal weapons, narcotics-related offences, declared political massacres and robberies. "For this purpose 42 additional SAPS task forces have been set up to relentlessly hunt identified suspects, over and above other units whose normal function is tracking criminals. Although 'Sword' unit operations will not be confined to specific areas and will criss-cross South Africa, special attention will be paid to Gauteng, KwaZulu-Natal and the Western Cape. Their first aim is to track down and arrest South Africa's 10 000 most wanted suspects - already identified - within 30 days of the launch of the police plan. They will then systematically hunt down other target groups as they are identified" (*Servamus*: 1996).

Shield

The "Shield" component of the plan will protect communities by reclaiming streets and rural areas and by deflecting cross-border and international crime. SAPS will aggressively establish control and dominate specific geographical areas to create a policing shield for communities. A major role will be played by partnership policing in which the police form specific alliances with certain sectors, for example, the business and agricultural sector, shopkeepers, hawkers and the security industry. "Shield" will also feature hi-tech measures such as electronic and camera surveillance of certain CBD areas in South Africa (*Servamus*:1996). Furthermore, the idea of safety networks will be introduced, namely:

International Safety Network with Interpol to fight international crime such as fraud, counterfeit currency. gun smuggling, narcotics and money-laundering

Regional Southern Africa Safety Network with the police of Lesotho. Namibia. Angola, Zambia, Botswana, Malawi, Tanzania, Mozambique, Zimbabwe and Swaziland

Border Safety Network within South Africa itself, aimed at preventing cross-border criminal activity

Urban Safety Network to reclaim the streets from criminals

Rural Safety Networks, especially in KwaZulu-Natal, to combat political violence and rural crimes. Parallel and ongoing measures to root out police corruption and improve discipline and services are also an integral part of the police plan. Naturally, the "Sword" and "Shield" components must be seen holistically as mutually supportive and co-ordinated. The 1996/97 Police Plan will make a decisive impact on South Africa's crime situation and so lay the foundation for eventually winning the war against crime. Ultimately, its success will depend on a supreme effort of will and commitment of all South Africans, but especially of the SAPS and other organs of state in the justice system (*Servamus*:1996).

Community policing

Effective community policing embraces the active and willing reaction by the community in all aspects of police practices and procedures. "Such a co-operative endeavour, which stresses joint responsibility by citizens and police for community safety, requires a quantum leap in faith and trust between both parties" (Martin: SAPS Website, 1996) .

Community policing has three basic premises:

- To work in mutual partnership with the community to protect life and property
- To solve neighbourhood problems
- To enhance the quality of life in our cities

The police, being the first line of defence in law enforcement, crime prevention and public safety should be given permission to carry out these functions as they deem necessary. They cannot do this alone, however, and in spite of community policing, the public must become involved as the eyes and ears on the home front.

Methods of community policing

- Increasing foot and bicycle patrols
- Designating certain officers to specific areas of the city to increase familiarity between police and public
- Decentralising by placing storefronts and neighbourhood offices in crisis areas of the city
- Developing sub-stations
- Formating alternative response teams composed of trained personnel such as nurses or social workers to work out of the storefronts

- Holding town hall meetings to gain community co-operation and to increase officers' involvement in extracurricular community activities, such as teaching crime prevention and safety programmes

If the public continues its active involvement in law enforcement, crime prevention and public safety efforts, community policing will be a success (Martin: SAPS Website, 1996).

7.9.1 Access to police services

The management service component in the Northern Province visited all area commissioners' offices to gather data on the South African Police Service in the province. All station, branch commanders, community police forums and other stakeholders were consulted to obtain their inputs and views in this regard.

The Northern Province presently faces several challenges and problems caused by the amalgamation of four different former agencies: Gazankulu, Venda, Lebowa and the South African Police.

There are also other factors that negatively affect the police service in this province. These include the population growth rate, political dispensation, geographical set up, diverse cultures and traditions, unemployment, shortage of educational instruments, and so on.

The total population of 4 684 412 comprises 430 791 (9,2%) urban residents and 4 253 621 (90,8%) rural. Illegal immigration affects police activities in the Northern Province since it shares its borders with Mozambique, Zimbabwe and Botswana.

Furthermore the shortage of schools is problematic since it means that many children do not attend schools. This may easily lead to such children becoming criminals and ultimately adding to the problems to policing.

Problems in rural areas

The larger part of the Northern Province consists of rural areas occupied mainly by blacks. Under the previous governments, blacks in the rural areas or homelands were not provided with easily accessible police services, the result being that the communities lost confidence in the police.

Furthermore, the rural areas, do not have adequate facilities to cater for the communities, and thus crucial problems are still being encountered. The police facilities available in such areas are so underresourced that people are not even aware of the transformation of the police. Police stations are very far apart, while the many residential areas are so widely dispersed that the people cannot contact the police easily.

According to the objectives of the new SAPS in this country, the communities are their most valuable customers, and therefore deserve immediate attention. To achieve this, the police will have to establish good relationships with the communities they serve.

Obstructions to effective policing

After a thorough discussion with representatives of the various community policing forums in the province, the following shortcomings and inadequacies were identified as the factors that hamper the police service the most in the satisfactory rendering of their duties.

Far Northern area

The following factors impact negatively on the smooth running of police services in the following magisterial areas:

Soutpansburg, Mutale and Vuwani and neighbouring areas

- Untarred roads
- Lack of police stations within a reasonable distance
- Poor communication systems such as few telephone lines
- Lack of water in areas such as Mailula, Machabawe, etc.
- Poor electricity supply
- Lack of health facilities such as clinics to care for prisoners in some areas
- Dilapidated or inadequate police structures such as offices and cells
- Shortage of police transport
- Lack of labour-saving devices and office equipment such as fax machines
- Lack of schools in some areas
- Poor sanitary facilities

Messina

- The first seven factors mentioned above also apply to this area. Also the following:
- Lack of proper alliances with neighbouring states (shortage of personnel at border points)
- Lack of housing accommodation for police members

Thohoyandou

- Lack of toilet facilities in some satellite stations
- Lack of water in some areas
- Lack of related activities such as an air wing

Central area

This area consists of the following magisterial districts:

Pietersburg, Seshego, Sekhukhuneland, Nebo and Thabamoopo

The following problems affect the functioning of the police in almost all the magisterial districts mentioned above:

- Poor telephone communications in places such as Maleboho, Matlala, Malipsdrift, Apel, Leboeng, Sekhukhune, Penge, Nebo, Lebowakgomo and Tubatse
- Lack of office equipment such as fax machines, photocopiers, etc.
- Bad road conditions
- Lack of drinking water
- Insufficient petrol or reservoir tanks to cater for police vehicles
- No meeting places (conference halls) for the Community Police Forums
- No aerial surveillance
- Lack of housing and office accommodation
- Dilapidated police structures
- Shortage of suitable transport such as four-wheel drive vans

Bushveld area

This area consisted of the following magisterial districts:

Ellisras, Thabazimbi, Warmbad, Waterberg, Potgietersrus and Mokerong

The following factors were identified as causing the greatest inconvenience to almost all the magisterial areas listed above:

- Lack of office and housing accommodation for members
- Poor electricity supply
- Poor telephone communication lines
- Shortage of personnel to render police duties
- Inadequate transport
- Bad road conditions
- Poor water supply in some areas
- Poor sewerage facilities
- Shortage of health facilities such as clinics
- Poor water purification and thus a health hazard
- Poor court rooms and charge offices
- Poor radio communication systems

Lowveld area

This area consists of the following magisterial districts:

Hlanganani, Sekgosese, Bolobedu, Giyani, Letaba, Ritavi, Naphuno, Namakgale, Lulekani, Mphala and Mapulaneng

The following problems hamper the smooth running of police services in all the magisterial areas mentioned above:

- Dilapidated police cells at various police stations
- Shortage of housing as well as office accommodation for members
- Poor electricity supply in certain areas
- Poor water supply

- Poor telephone communication lines in certain areas
- Bad road conditions
- Inadequate transport
- Poor sewerage facilities in certain areas
- Shortage of schools in certain areas, giving rise to a high incidence of street children
- Poor charge office and court rooms
- Poor radio communication systems
- Shortage of health facilities such as clinics in some areas
- Shortage of police personnel in certain areas

An examination and analysis of the above factors in various areas made it clear that the police cannot function efficiently if these factors are not given serious consideration addressed in whatever way possible. (So many of the factors in all areas that a single list would be adequate for the whole province.)

Factors affecting the department's function

The above factors have a very negative effect on the smooth running of the police department of the Northern Province due to the following reasons:

- The shortage of water at certain police stations can be a health hazard to the community it is serving. Furthermore, poor water purification facilities cause an unnecessary poor state of health in the community as well as among members of the police.

- Bad road conditions prevent the police from arriving at locations where they are urgently required. These conditions also lead to serious road accidents which severely damage police vehicles, the repair of which is extremely costly.

- Inadequate transport in certain areas can cause the department to spend much of its budget on vehicle repairs. Sedans supplied to rough areas obviously cannot cope with the bad road conditions. This fosters the community's loss of confidence in the police because, if there is a shortage of transport, the police cannot render their services properly, nor as efficiently and effectively as expected. Petrol shortage in some areas negatively affect the police services because vehicles have to travel far for petrol, and use much of this petrol for the return journey.

- The poor electricity supply encourages the incidence of burglaries at night. Office equipment and labour-saving devices such as photocopiers, fax machines, etc. cannot be used owing to the shortage of electricity.

- The shortage of health facilities is another setbacks for the community, since a healthy environment would breed a more positive attitude towards trying to curb the escalating rate of crime. This is also affects the police directly because sometimes detainees are found to be in poor health and they obviously need to be assisted. If the police could offer such assistance, it may strengthen relationships between the two parties.

- The charge offices and court rooms should at least look pleasant and welcoming to the communities. Dilapidated police structures need to be renovated as soon as possible to improve the efficiency of the police services in the province.

- Radio communications need upgrading to improve police services in the whole province. Poor telephone communications are a major problem in certain areas where the equipment is so old that the caller has to wait more than twenty minutes for his call to be put through to the police station.

Distribution of services

An analysis of the distribution of resources in the province showed an unfair distribution. The reason for this is that many police stations in the province were formerly homeland police stations and there were not enough funds for the purchase of adequate resources. Therefore resources in the province are not distributed according to the size of the population in a specific area.

Access to services

According to an analysis of the available data, access to services in all areas of the former homelands is not at all good. The former South African police stations have very good facilities at their disposal, and nearly 70% of the areas they cover have tarred or well maintained roads. Almost all the districts of the former homelands do not provide easy access by the community to police services. This is due to the shortage of resources as well as to bad road conditions.

Service re-allocation

The province has already urged its work study officers to conduct an investigation into the allocation and re-allocation of the available resources in the whole province. Guidelines were drawn up by the national office with regard to the assessment and re-allocation of police resources, and are being adhered to by this province.

There are other areas which currently also face serious problems, especially places which have no water, clinics, electricity, etc. The absence of such basic essentials severely curtails the ability of the police service to serve the community efficiently.

Conclusion

Due to the factors mentioned above, the police are unable to function at the required level. The above shortcomings should be addressed immediately funds are available.

P. N. Bohlolo
Capt. Ngobeni
South African Police Service

MAP 23 : POPULATION PER POLICE STATION

Source : S A Police Services

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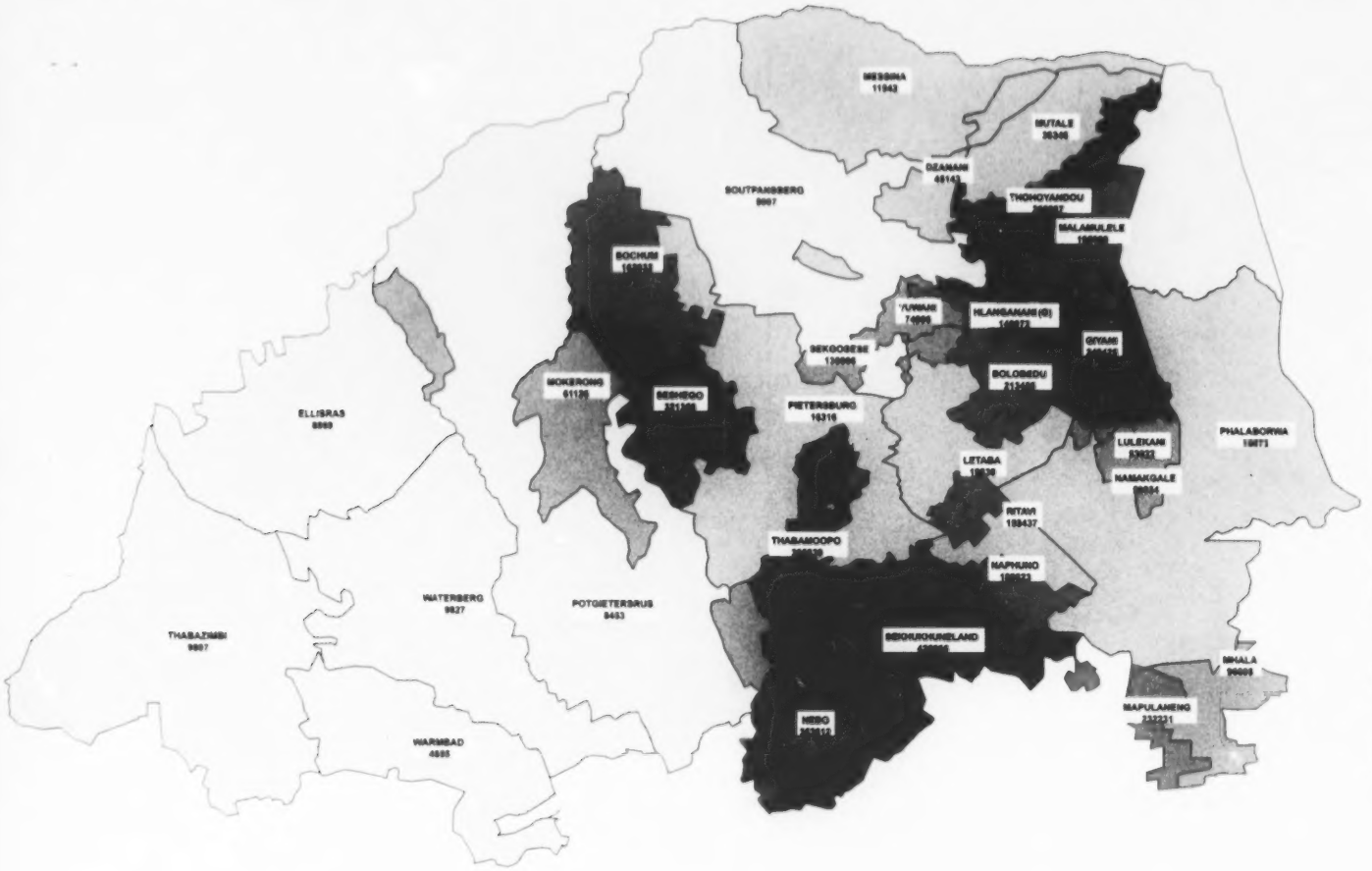

N

Population per police station

4 655	to	9 827
9 827	to	45 143
45 143	to	135 666
135 666	to	232 231
232 231	to	426 865

KM

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Table 23 Population per police station

DISTRICT	POLICE FACILITY	TOTAL POPULATION	POPULATION PER POLICE FACILITY
Bochum	1	162 032	162 032
Bolobedu	1	213 455	213 455
Dzanani	3	135 428	45 143
Ellisras	3	26 607	8 869
Giyani	1	240 425	240 425
Hlanganani (G)	1	140 072	140 072
Letaba	3	59 491	19 830
Lulekani	1	53 922	53 922
Malamulele	1	195 099	195 099
Mapulaneng	1	232 231	232 231
Messina	2	23 084	11 542
Mhala	3	289 825	96 608
Mokerong	8	489 005	61 126
Mutale	2	60 692	30 346
Namakgale	1	59 854	59 854
Naphuno	1	188 823	188 823
Nebo	1	353 612	353 612
Phalaborwa	3	30 218	10 073
Pietersburg	4	65 263	16 316
Potgietersrus	8	67 620	8 453
Ritavi	1	158 437	158 437
Sekgosese	1	135 666	135 666
Sekhukhuneland	1	426 865	426 865
Seshego	1	321 356	321 356
Soutpansberg	7	35 050	5 007
Thabamoopo	1	385 039	385 039
Thabazimbi	5	49 035	9 807
Thohoyandou	1	268 887	268 887
Vuwani	2	149 812	74 906
Warmbad	9	41 891	4 655
Waterberg	5	49 135	9 827

8

DISCUSSION: The overall picture

Service Needs Index

As discussed in Section 4.2, the service variables selected for the Service Needs Index were ratios of population to police stations, post offices and hospital beds; ratio of road length to district area; ratio of 6 to 17 year olds to schools; percentages of fully serviced houses, informal houses, formal houses electrified and informal houses electrified and telephone shares.

A district with a low service index score and not requiring development intervention would have the following service profile: low ratios of population to police stations, post offices and hospital beds; a high ratio of road length to district area; a low ratio of 6 to 17 year olds to schools; high percentages of fully serviced houses, formal houses electrified and informal houses electrified; high telephone shares, and a low percentage of informal houses. A district with a high index score requires development intervention and would have the following service profile: high ratios of population to police stations, post offices and hospital beds; a low ratio of road length to district area; a high ratio of 6 to 17 year olds to schools; low percentages of fully serviced houses, formal houses electrified and informal houses electrified; low telephone shares, and a high percentage of informal houses.

The Service Needs Index map for the Northern Province has five ranges. The ten former white Transvaal districts all fall into the better developed two ranges (20-44). The 21 former black Lebowa, Venda and Gazankulu district all fall into the three less developed ranges.

Pietersburg (20) is the most developed district in terms of the Service Needs Index. Pietersburg, the capital and a former white Transvaal district, has a far higher level of development than its former black neighbours. The minimum and maximum differences in Needs Index scores between Pietersburg and its former black neighbours is 34 (Seshego) and 58 (Sekgosese) respectively.

The two worst off districts, Hlanganani and Sekgosese (81 and 78), are two adjacent former black Gazankulu and Lebowa districts. Sekgosese, to the west of Hlanganani, has already been compared with Pietersberg. Hlanganani is surrounded mostly by former black districts. Its level of service provision is worse than those of Sekgosese and Bolubedu by 3 and 22 Service Needs Index points respectively.

Combined Social and Service Index

The correlation coefficient (Pearsons) between socio-economic status and service provision is +0,81. This indicates a strong general trend firstly towards high levels of socio-economic status and service provision in the same district, and secondly, decreasing of service levels in line with decreasing levels of socio-economic status.

As correlations do not neccessarily indicate causality, it cannot be assumed that the provision of services alone will bring about high socio-economic status. Economic upliftment programmes will have to be implemented in conjunction with the removal of services backlogs.

Pietersburg (22) has the lowest Combined Index Score. As has been discussed in the sections on the Social and Service Needs Indices its former black neighbouring districts are much less developed. This is symptomatic of the relationship between all the former white and former black districts. The closest levels of development between former white and former black districts are between Messina (35), and Thohoyandou and Seshego (both 53). The variation in development between former white districts is 13 Combined Index points (22 to 35 points). The best and worst-developed former black districts are Thohoyandou and Seshego (both with 53 points) and Hlanganani (77 points) respectively.

Summary of commentators' views

All former homeland districts have higher **population densities** than the districts in former white areas. Fifteen former homeland districts have population densities exceeding 100 people/km^2. Of these 15 districts, six have densities in excess of 200 people/km^2. These six districts comprise Namakgale, Hlanganani, Ritavi, Mapulaneng, Vuwani and Sekgosesi. An analysis of the extent to which these high densities are based in rural areas shows that all the areas with population densities in excess of 100 people/km^2, except for Namakgale, lie in areas where the rural population makes up more than 90% of the total population.

An overview was given of population dynamics in the Northern Province, focusing on problems related to **population pressure**. A clear distinction can be drawn between former homeland areas and former white areas in this province. The former homeland areas are characterised by high population densities and high population growth rates in sharp contrast with the low densities and low growth rates of the population in former white districts. In addition, with the exception of Namakgale, the former homeland districts also have high youth dependency ratios with above 46% of the population falling into the 0-14 year age bracket; imbalances in female:male ratios with a greater number of potentially economically active females than males and low levels of urbanisation i.e. below 15% of the population is urbanised. These are considered to be important factors in planning for future population pressure in the province.

The Northern Province consists of a section of the former Transvaal province, as well as three former homelands, Venda, Gazankulu and Lebowa. The latter areas functioned as dormitories, while most **employment** opportunities occurred in the formerly white districts of the province which consequently have the highest employment rates according to the submitted data. In these areas rates of employment range between 47% and 68% of the adult population. In the former homelands the highest rate of employment is predictably in Namakgale which is virtually surrounded by the Phalaborwa district. This district could offer employment to 31% of its adult population and 65% of its labour force. Employment prospects in the other rural districts are bleak, and only between 9 and 20% of the adult population could find work.

The best off districts with regard to **functionally literate** people are Pietersburg (59%), Phalaborwa (50%), Ellisras (48%), and Thabamoopo (43%). Seshego, Thabazimbi, Warmbad and Namakgale all fall in the 42% range and are also relatively well-off districts. Lulekani (23% - worst-off district), Giyani (26%), Mhala (27%), and Malamulele (27%) are all rural districts of the former Gazankulu with very few functionally literate people. Bolobedu (29%) of the former Lebowa also has a high percentage of illiterate people.

Pietersburg is a good example of the dualism in the province. On a per capita basis, it had one of the lowest **poverty** gaps - only R199 per person per year, with a population of under 70 000 and an annual poverty gap under R13 million. However, Pietersburg's borders were artificially redrawn during the apartheid era. Many of its workers live in neighbouring Seshego and Thabamoopo. The combined population of these two districts was around 700 000 people in 1993 and their combined poverty gap over R400 million. On a per capita basis each individual in these districts, whether young or old, needed respectively R566 and R608 per year just to reach the minimum living level. This pattern of relative affluence in the main towns combined with poverty in the dormitory areas is visible in much of the rest of the province.

Since the homelands functioned as dormitory areas while the former Transvaal areas offered virtually the only employment opportunities, workers left the dormitory areas in search of employment while members of the extended family remained behind. As a result there are relatively few workers in the rural areas, and the number of non-working people is rather high. This results in high **dependency ratios** in the homelands and lower ratios in the former white portions of the province.

The former homelands have relatively high population densities. These contribute to a large extent to high **pupil:teacher ratios**. The homelands largely comprised rural communities that were expected to build their own schools and the slow rate at which they could do this contributed to the high pupil:teacher ratio. This high ratio made effective teaching difficult which contributed to a high failure rate, which in turn contributed to even higher pupil:teacher ratios and thus perpetuated circle.

According to the map and table, there is a great lack of **early childhood development** services in the following districts: Potgietersrus, Warmbad, and Pietersburg of the former Transvaal; Giyani and Malamulele of Gazankulu, and Namakgale of Lebowa. These areas are thus high priority areas.

The Bushveld and Western regions have the lowest **hospital beds** per 1 000 people but are also the most underutilised with total bed occupancy rates of 41%. The highest total bed occupancy rate is 58% for the Northern region. This implies an overprovision throughout the province, but is only the case in some services. Community health centres have at most a 39% occupancy and the lowest occupancy is 1% in the Lowveld. By contrast the mental health hospitals in the Northern region are overutilised and overcrowded with an occupancy of 118%. The services that come closest to optimum are the community hospital in the Northern region and the secondary hospital in the Central region, which have 69 and 68% occupancy respectively.

The distribution of the range of percentages of **informal housing** units in general

reflects the political boundaries of the old South Africa. The clusters of districts with low levels of informal housing stretch eastward from Pietersburg and are also found in the west and north-western portions of the province, including the Soutpansberg district. The districts with higher percentages of informal housing include most of the former black Lebowa, Venda and Gazankulu districts.

The Northern Province has an older person (65 +) population of 195 792 of whom 184 758 (94,4%) are blacks. As far as available services are concerned, the following situation exists: there are only two **old age homes** serving 504 black elderly (0,03%), while in white communities, seven homes exist, serving 531 white elderly (5%). The buildings of the two homes for the black elderly are dilapidated and care for the frail and bedridden elderly is poor owing to the lack of facilities. The seven homes for the white elderly are well equipped and most are subsidised by the government.

The very high usage of bucket and pit latrines in all of the former Venda, Gazankulu and Lebowa districts indicates that a massive investment in **sanitation** is required because bucket and pit latrines are below the minimum acceptable level of sanitation. On-site **water provision** is very low in all the former black areas where large percentages of households are also without access to any water. There are also many former white districts where 30% of households are without access to water.

The former white Transvaal districts in general have higher levels of **electrification** of formal housing than the fromer black Lebowa, Gazankulu and Venda districts. There are two notable exceptions in the former Gazankulu. These are the districts of Giyani (80%) and Malamulele (86%).

The department believes in the famous saying that good **roads** create wealth, not that wealth creates good roads. Therefore roads are viewed as an important vehicle for economic growth, social upliftment, and redressing some of the imbalances of the past. The Northern Province is an amalgamation of four previous administrations that had different priorities and different standards. Thus the accessibility of roads in the province varies widely from district to district as shown by the figures in this report. Furthermore, the variation in road standards means that even districts with the same accessibility do not necessarily enjoy the same quality of service, for example Waterberg and Bolobedu both have an accessibility of 0,23, but do not have the same quality of roads. Without necessarily increasing the length of the road network, the province is trying to bring uniformity to each of the road categories. This report also shows that the roads do not necessarily service the areas of population concentration, for example Thabazimbi (0,18) has a higher accessibility rate than Sekhukhune (0,15) which has a higher population.

The provision of **telephones** in the 21 districts from the former black homelands and self governing states is extremely poor. This is reflected in the table which shows that 20 of these districts are very high priority and one is high priority. The ten former white Transvaal districts are all within the medium to very low priority range. There is a massive disparity between provision in the former black and the former white districts.

There is also a great imbalance in **post office** distribution for the different race groups. The traditionally white areas have sufficient post offices, while there is a great shortage of outlets in the traditionally black areas. The imbalance in the distribution of

postal facilities is a result of past apartheid policies as the establishment of post offices was based on political decisions and not on the needs of the people. The former homeland areas (Venda, Gazankulu, Lebowa) in the Northern province, home to the majority of the population, are the worst off.

Accessibility to **police services** in all former homeland areas is not good at all. The former South African police stations had everything at their disposal, and nearly 70% of their areas have tarred or well maintained roads. Almost none of the districts of the former homelands provide easy access for the community to police services. This is due to the shortage of resources as well as to very bad road conditions. At present other areas also face serious problems, especially where there is no water, no clinics, no electricity, etc. which means that the police are unable to serve their communities effectively and efficiently.

Conclusion

In general the commentators view the Northern Province as having a fundamentally dualistic socio-economic nature. In comparison to the former white Transvaal the former black homelands have higher population densities, higher percentages of children, higher ratios of females to males, higher dependency ratios, and lower levels of urbanisation. The former homelands have high levels of poverty and traditionally supplied the labour for the former white districts where most employment opportunities existed.

Dualism in the socio-economic realm is also spatially manifest as disparities in the level of service provision between former black and former white areas. This has had a very negative impact on former black areas, and more especially on the rural areas. The effect of this is that many of the social services have become ineffectual because they are not able to utilise technology that requires basic services, such as water and electricity. The SAPS, for example, finds their mobility curtailed by poor road surfaces and the flow of information is limited through poor communications facilities. These factors influence any service located in the rural areas or providing services to rural regions.

Future research could monitor changes in service provision and socio-economic status. The main sources of data would be the 1996 Census, service providers and the RDP activities. The 1996 Census would allow the Social Needs Index to be updated. However, with regard to services, this census would provide information on services provided to households only. Service providers and government departments could be sources of information regarding the provision of public services. The most important facet of the 1996 Census is that information on household services will be available at enumerator area (EA) level. As EAs usually are socio-economically homogenous, this will allow a rigorous analysis of the relationship between socio-economic status and service provision.

It is highly probable that as there is now a political will to provide services to and economically uplift previously disadvantaged communities, these communities should simultaneously experience improved socio-economic status and service provision. The process of creating an equitable society should be monitored by the above research to provide insight into the rate of change in the spatial distribution of services

and also socio-economic status. It is hoped that this document and future research will contribute to the process of uplifting the disadvantaged and thereby contribute to the creation of an equitable South African society.

B. O'Leary
Human Sciences Research Council

MAP 24 : SERVICE PROVISION INDEX

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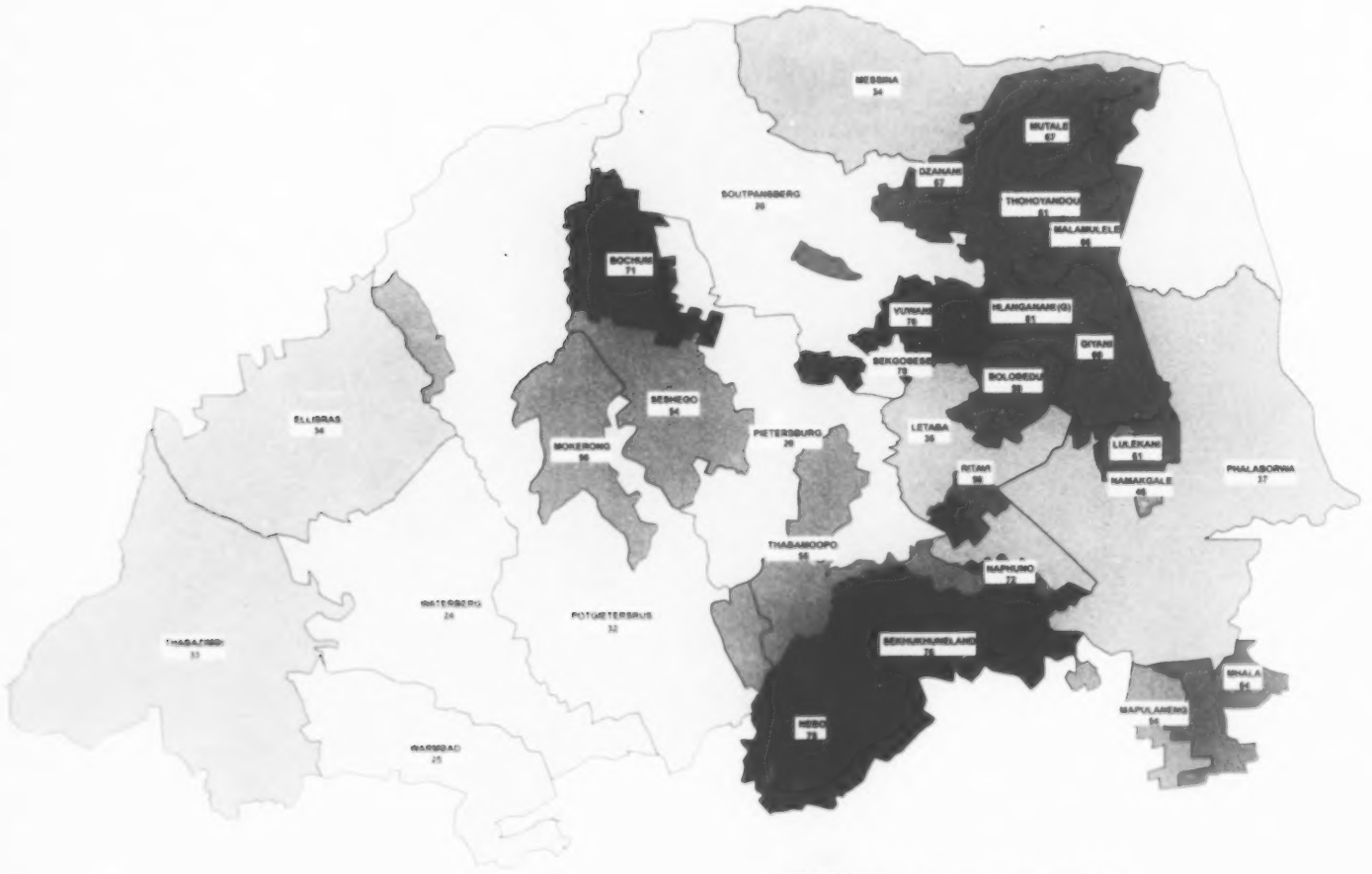

Index

20	to	32		
32	to	44		
44	to	57		
57	to	69		
69	to	81		

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MAP 25 : COMBINED SOCIAL NEEDS AND SERVICE PROVISION INDEX

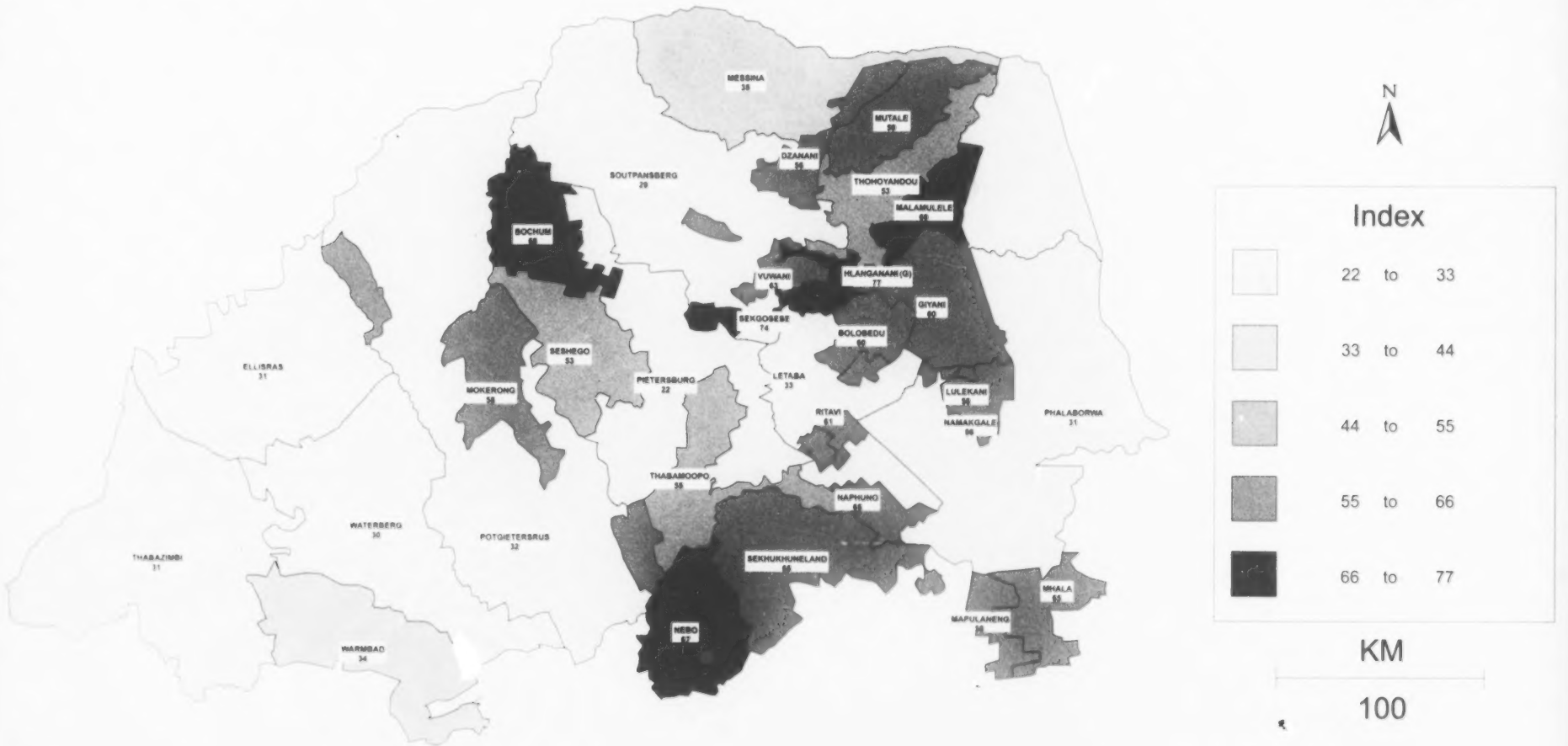

Table 24 Combined social needs and service provision index

DISTRICT	SOCIAL INDEX	SERVICE INDEX	COMBINED INDEX
Hlanganani	72	81	77
Sekgosese	69	78	74
Malamulele	72	66	69
Bochum	64	71	68
Nebo	59	75	67
Mhala	65	64	65
Sekhukhuneland	54	76	65
Naphuno	57	72	65
Vuwani	56	70	63
Ritavi	63	58	61
Bolobedu	61	59	60
Giyani	59	60	60
Mutale	51	67	59
Lulekani	55	61	58
Mapulaneng	62	54	58
Mokerong	60	56	58
Namakgale	66	46	56
Dzanani	44	67	56
Thabamoopo	54	55	55
Thohoyandou	44	61	53
Seshego	52	54	53
Messina	36	34	35
Warmbad	42	25	34
Letaba	30	35	33
Potgietersrus	32	32	32
Phalaborwa	24	37	31
Ellisras	27	34	31
Thabazimbi	28	33	31
Waterberg	36	24	30
Soutpansberg	32	26	29
Pietersburg	24	20	22

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This book is one of a series that uses Geographic Information Systems (GIS) to outline the need for and provision of services in each of the nine South African provinces. A global view or indicator of the simultaneous influence of the socio-economic status of people and the level of provision of domestic services and public facilities in all districts is needed. Such a view encapsulates the social and service profile of each district, and can be obtained, firstly, by developing indices for the social and service variables for each district. A single index, or benchmark, of levels of socio-economic status, household services and public facilities in each magisterial district is created by combining these indices.

Graphic and tabular representations of levels of development can highlight spatial inequalities and thereby raise questions of causality. To provide information about local levels of development, knowledgeable persons involved in service delivery in each province were contacted for their comments. The books in this series contain maps, tables and contributions from spokespersons in NGOs, universities, government departments, service providers, parastatals and research organisations.

It is hoped that these books and future research on the rate of change in socio-economic status and service provision will contribute to the creation of an equitable South African society.

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